



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

Dear Crash Data Researchers/Users:

Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

\*\*\* \* \*\*\*



AUTO SAFETY HOTLINE  
(800) 424-9393  
Wash. D.C. Area 366-0123

**DYNAMIC SCIENCE, INC.**  
In-Depth Accident Investigation

Contract DTNH22-87C-47169  
Case DSI-93-AB-010

[REDACTED], 1993

## **DISCLAIMERS**

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no responsibility for the contents or use thereof.

The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the National Highway Traffic Safety Administration.

The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

## TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.  
CONTRACT NUMBER: DTNH22-87C-47169  
CASE NUMBER: Case DSI-93-AB-010

Vehicle 1, a 1991 Acura Legend L four-door, was being driven south in the southbound left turn lane of a three lane, undivided, urban roadway in the [REDACTED] during the late night hours of a summer weekend.

The driver of Vehicle 1 was preparing to turn left onto an intersecting two lane, undivided roadway and the vehicle was travelling at a speed estimated to be between 24 ad 32 KPH (15 and 20 MPH).

The intersection had been prepared for resurfacing and the old road surface had been removed. This preparation had left four manhole tubes projecting above the road surface. As the driver began the left turn, the left front undercarriage struck a manhole tube.

This impact was out of scope for CRASH III PC, or any other acceptable reconstruction program, and the Delta V was not computed. The CDC for this impact was 00UYLN2 and the combined direct and induced damage length was 208.3 cm (82 in). The forces in this undercarriage impact resulted in the deployment of the airbag.

The driver of Vehicle 1 sustained minor injuries consisting of abrasions; maximum AIS = AIS-1. She was treated the next day by a private physician. The right front seating position occupant sustained no injury.

After impact, Vehicle 1 was brought to a controlled stop and was later driven from the scene.

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**DYNAMIC SCIENCE, INC.  
ACCIDENT INVESTIGATION  
CASE NUMBER: DSI-93-AB-010**

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- B. Police Accident Report

**ACCIDENT DATA:**

**Location:**

[REDACTED]

**Area/Type:**

Urban/Residential

**Date/Time:**

Summer Weekend/Night

**Accident Type:**

Car/Fixed Object

**Injury Severity:**

**Vehicle 1:**

Driver (case occupant), AIS-1  
R/F Occupant, No injury

**AMBIENCE:**

**Viewing Conditions:**

No viewing restrictions

**Cloud Cover:**

Clear

**Precipitation:**

None

**Temperature:**

18 to 21 ° C (65 to 70 ° F)

**Road Surface:**

Dry

**ROADWAY:**

**VEHICLE 1**

**Type:** 3 lane, undivided at right angle intersection

**Width:** 9.4 m (30.8 ft)

**Traffic Density:** Light

**Median:** None

**Edge:** 20.3 cm (8.0 in) raised concrete curb

**Surface:** Shaved asphalt/concrete

**Reported Defects:** Raised manholes due to resurfacing preparations

**Co-efficient of Friction (est.):** .85

**Vertical Alignment:** Negative 6 percent, Downgrade

**Horizontal Alignment:** Straight

**Traffic Controls:**

**VEHICLE 1**

**Signals:** On-color red, yellow and green traffic signals

**Signs:** Construction warning signs

**Speed Limit:** 40 KPH (25 MPH)

**Markings:** None - all markings removed when old asphalt surface was removed.

**VEHICLES:**

**VEHICLE 1**

<b>Description:</b>	1991 Acura Legend L
<b>Odometer:</b>	16,980 km (10,551 mi)
<b>Engine:</b>	V6 / 3.2 L
<b>Vehicle Modifications:</b>	None
<b>Tire Condition:</b>	Excellent, over 80% of tread remains. No abnormal treadwear patterns.
<b>Manual Restraints:</b>	3-point, manual lap/shoulder restraints at L/F, R/F, L/R and R/R seating positions. 2-point lap restraint at C/R seating position.
<b>Automatic Restraints:</b>	Driver's airbag
<b>Reported Defects:</b>	None
<b>Cargo:</b>	None
<b>Windshield Damage:</b>	None
<b>Fleet:</b>	None
<b>Tow Status:</b>	Not towed, driven from scene.

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**VEHICLE DAMAGE:**

**VEHICLE 1**

**Object Struck:** Raised manhole tube and cover  
**Event Number:** 01  
**CDC:** 00UYLN2  
**Maximum Crush:** Not measured, undercarriage damage

**VEHICLE VELOCITY ESTIMATES:**

**VEHICLE 1**

**Impact Speed:** 24-32 KPH (15-20 MPH)  
(estimated)  
**Total Delta V:** Not computed - out of scope  
**Longitudinal Delta V:** Not computed - out of scope  
**Lateral Delta V:** Not computed - out of scope  
**Energy Dissipation:** Not computed - out of scope

Calculations based upon: None, accident is out of scope of acceptable accident reconstruction programs.

**COLLISION SEQUENCE:**

**Pre-Crash:** This single vehicle incident occurred during the late night hours of a summer weekend on a three-lane, undivided, asphalt paved, urban roadway in the [REDACTED]. The weather was clear, there were no viewing restrictions and the road surface was dry. Traffic volume was light and the posted speed limit is 40 KPH (25 MPH).

The roadway is a north/south three-lane road that intersects at right angles with an east/west two-lane, undivided, asphalt paved roadway. The north/south road configuration is a southbound and northbound through travel lane, and a dedicated left turn lane in each direction. The intersecting roadway consists of a westbound and an eastbound travel lane.

Traffic at the intersection is controlled by on-color red, yellow and green traffic signal lights, and the old roadway surfaces had been removed in preparation for resurfacing. This road work had removed all lane and crosswalk markings, and had left four manhole tubes projecting above the road surface. Two of the manholes projected 10.2 cm (4 in) above the road surface, one projected 11.7 cm (4.6 in) and the fourth projected approximately 19.1 cm (7.5 in) above the road surface. Each manhole tube had been temporarily "ramped" with cold asphalt. There were construction warning signs posted approximately 30.5 m (100 ft) from the intersection in each direction.

Vehicle 1, a 1991 Acura Legend L four-door, was being driven south in the southbound left turn lane at a speed estimated to be between 24 and 32 KPH (15 and 20 MPH) by the 62 year old female driver who was restrained by the available three point, manual lap/shoulder safety restraints. Occupant 2, a 76 year old male, was sitting in the right front seating position and was wearing the available three point lap/shoulder safety restraints.

As the driver of Vehicle 1 was making a left turn into the intersecting road, the right front wheel of the vehicle drove over one of the manholes protruding 10.2 cm (4.0 in) which raised the right front of Vehicle 1 and caused the left front to lower slightly as it approached the 19.1 cm (7.5 in) high manhole tube.

**Crash:** As the left front tire passed to the left of the 19.1 cm (7.5 in) high manhole the left front trunion, engine cradle, and other suspension components contacted the manhole tube. This impact was out of scope for CRASH III PC, and other acceptable reconstruction programs, and a Delta V was not computed. The CDC for this impact was 00ULYN2 and the

combined direct and induced damage length was 208.3 cm (82 in). The forces involved in this undercarriage impact resulted in the deployment airbag.

**Post Crash:** After impact, the driver applied the brakes of Vehicle 1 and brought it to a controlled stop adjacent to the south curb line of the east/west roadway approximately 18.3 m (60 ft) east of the POI.

**Occupant Kinematics:**

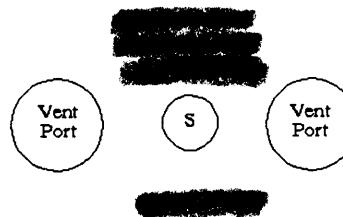
The driver of Vehicle 1 (the case occupant) was seated in a bucket seat in a normal, upright seated position. The driver, who weighs 59 kg (130 lb) and is 163 cm (64 in) in height, was wearing the available three point, manual lap/shoulder safety restraints and had the electric seat adjusted to the full forward position. The seat height was adjusted to near its full extension, and the adjustable seat back rest was in a normal, upright configuration.

At impact, the driver's hands were on the steering wheel rim, but their exact positions could not be determined. The driver's right foot was on the accelerator and her left foot was on the foot rest attached to the left toe pan.

The forces in this impact cause the driver's head to be projected forward and down and as the airbag deployed her face contacted the airbag. This contact resulted in minor facial abrasions.

**Airbag System:**

The case vehicle was equipped with a driver's side supplemental restraint system and the airbag deployed as a result of a "snagging" type impact of the left front suspension with a raised manhole tube. The airbag was manufactured by [REDACTED] Japan and was stamped with the following identification numbers:



The airbag was not damaged during the accident sequence and did not yield evidence of occupant contact. The airbag measured 63.5 cm (25 in) in diameter in its deflated, post-accident state. The airbag was vented by two ports located on the back side of the bag (away from the driver). The 3.8 cm (1.5 in) diameter ports were located at the 10:30 and 1:30 o'clock

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positions approximately 17.8 cm (7 in) below the airbag seam and were approximately 15.2 cm (6 in) distance from each other.

At the time of Dynamic Science's on-site inspection that occurred 9 days post accident and within 24 hours of notification, the airbag contained four horizontal and five vertical fold creases as oriented to the top of the airbag module.

Inspection of the airbag module, after removal from the steering wheel hub revealed the following numbers which were attached to the back of the module:



Inspection of the supplemental restraint system sensors, wiring and modules, revealed no inappropriate wear, damage or alterations.

**Scene Clearance:** The driver of Vehicle 1 (the case occupant) sustained minor facial abrasions; maximum AIS = AIS-1. She did not require medical attention and was examined the next day by a private physician. Occupant 2 sustained no injury in the accident.

Police were not called, nor was an investigation made of this incident. The case occupant drove the vehicle from the scene.

**Safety Standards:** During the vehicle inspection, no violations were found of Federal Motor Vehicle Safety Standards and Regulations.

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**DRIVER AND OTHER OCCUPANTS:**

**VEHICLE 1**

	<u>DRIVER</u>	<u>OCCUPANT 2</u>
<b>Age/Sex:</b>	62 year old/Female	76 year old/Male
<b>Seated Position:</b>	Left Front	Right Front
<b>Seat Type:</b>	Bucket	Bucket
<b>Height:</b>	163 cm (64 in)	180 cm (71 in)
<b>Weight:</b>	59 kg (130 lb)	79 kg. (175 lb)
<b>Occupation:</b>	Housewife	Newscaster/Reporter
<b>Pre-existing Medical Condition:</b>	None known	None known
<b>Alcohol/Drug Involvement:</b>	None	None
<b>Driving Experience:</b>	40 years	N/A
<b>Body Posture:</b>	Normal, upright seated position	Normal, upright seated position
<b>Hand Position:</b>	Both hands on steering wheel rim - positions unknown	Unknown
<b>Foot Position:</b>	Left foot on floor/toe pan, right foot on brake	Both feet on floor/toe pan
<b>Restraint Usage:</b>	3-point manual lap/shoulder restraint	3-point manual lap/shoulder restraint
<b>Additional Occupants:</b>	One	None

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**INJURIES:**

**Vehicle 1**

	<u>INJURY</u>	<u>OIC CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
<b>DRIVER:</b>	Abrasions, Face	7290202.1,0	910	Airbag

**R/F** Not injured  
**OCCUPANT:**

## **Abbreviations Used In Scene And Photographic Documentation**

ft	Feet
in	Inches
AIS	Abbreviated Injury Scale
BLF	Begin Left Front
BLR	Begin Left Rear
BRF	Begin Right Front
BRR	Begin Right Rear
CBE	Cab Behind Engine
CCW	Counterclockwise
CDC	Collision Deformation Classification
CG	Center of Gravity
CM	Centimeter
COE	Cab Over Engine
CW	Clockwise
E, EB	East, Eastbound
ELF	End Left Front
ELR	End Left Rear
ERF	End Right Front
ERR	End Right Rear
FRP	Final Rest Position
I	Interstate Highway
IP	Intermediate Point
KG	Kilogram
KPH	Kilometers Per Hour
LF	Left Front
LR	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
PDOF	Principal Direction of Force
POI	Point of Impact
R	Radius of Curvature
RF	Right Front
RL	Reference Line
RP	Reference Point
RR	Right Rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
T	Time or Elapsed Time (in seconds)
U.S.	United States Highway
V1	Vehicle Number 1
W, WB	West, Westbound

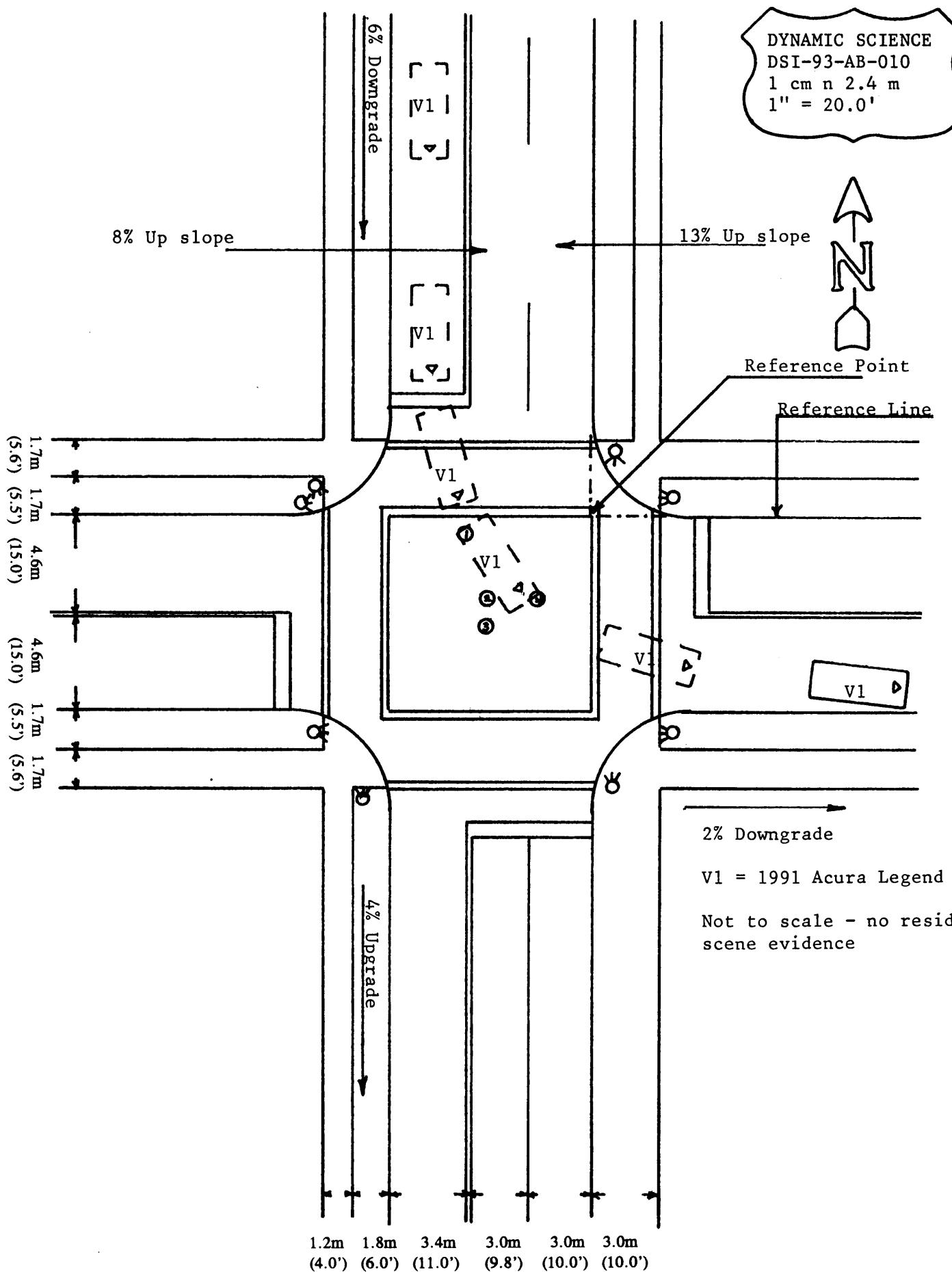
**Body Contacts and Injury Table, Case DSI-93-AB-010**

62 Year Old Female; Left Front

1991 Acura Legend L 4-door

CDC = 00UYLN2; PDOF = 000°; Delta V = Not computed

<b><u>OIC/AIS CODE</u></b>	<b><u>ICD-9</u></b>	<b><u>INJURIES</u></b>	<b><u>CONTACT POINT</u></b>
7290202.1,0451100	910.0	Abrasions, Face	Airbag



## COLLISION MEASUREMENTS

Case Number DSI-93-AB-010

Reference Point: Meeting point north curb line, east/west roadway and east curb line north/south roadway

Reference Line: North curb line east/west roadway

DATA POINT	LONGITUDINAL S	LATERALS
East curb, north/south roadway	0	15.2 c (50 ft) N
Broken, white painted line	3.0 m (10 ft) W	15.2 c (50 ft) N
Double, yellow painted line	6.0 m (19.8 ft) W	15.2 c (50 ft) N
West curb, north/south roadway	9.4 m (30.8 ft) W	15.2 c (50 ft) N
North curb, east/west roadway	9.1 m (30 ft) E	0
Double, yellow painted line	9.1 m (30 ft) E	4.6m (15.0 ft) S
South curb, east/west roadway	9.1 m (30 ft) E	9.1m (30.0 ft) S
POI (manhole # 4)	2.7 m (8.9 ft) W	3.4m (11.3 ft) S
Manhole # 1 (center) Approximate height above road surface = 11.7 cm (4.6 in)	5.8 m (19.1 ft) W	.9 m (2.8 ft) S
Manhole # 2 (center) Approximate height above road surface = 10.2 cm (4 in)	5.1 m (16.8 ft) W	3.8m (12.4 ft) S
Manhole # 3 (center) Approximate height above road surface = 10.2 cm (4 in)	5.1 m (16.8 ft) W	5.1 m (16.6 ft) S
Manhole # 4 (center) Approximate height above road surface = 19.1 cm (7.5 in)	2.5 m (8.3 ft) W	3.9 m (12.7 ft) S

## PHOTO INDEX

Case No. DSI-93-AB-010

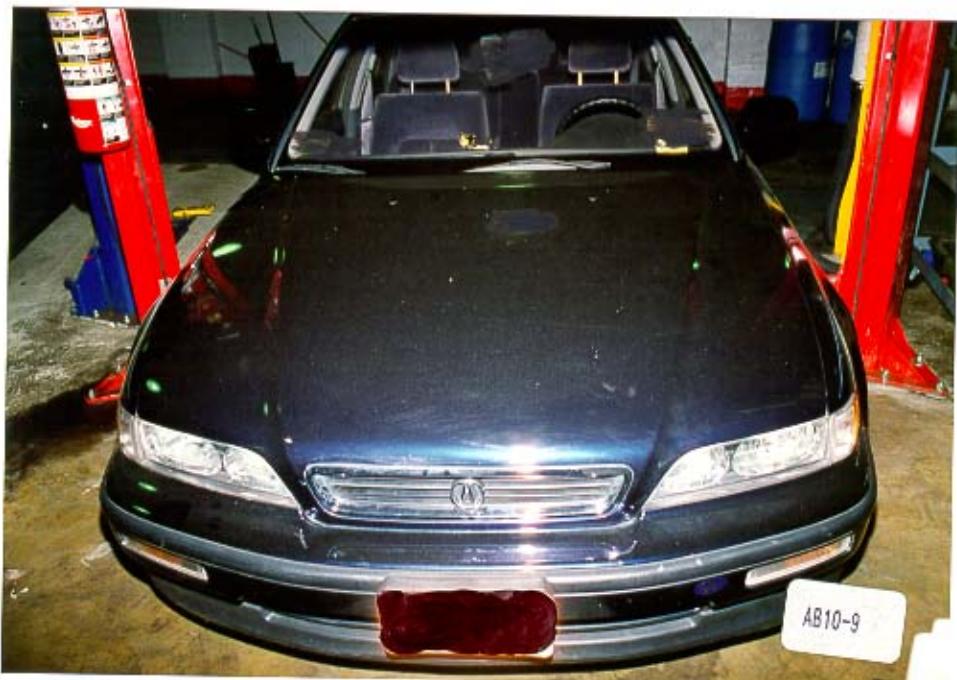
PHOTO NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
1	Vehicle 1	north	Approach path, Vehicle 1
2-6	Vehicle 1	south	Travel path, Vehicle 1
7	Vehicle 1	southeast	POI, Vehicle 1
8	Vehicle 1	north	Reverse travel path, Vehicle 1
9-14	Vehicle 1	CCW	Exterior views, Vehicle 1
15	Vehicle 1	---	L/F wheel/undercarriage, Vehicle 1
16-28	Vehicle 1	front to rear	Left side undercarriage, Vehicle 1
29-31	Vehicle 2	rear to front	Left side undercarriage, Vehicle 1
32-37	Vehicle 2	front to rear	Right side undercarriage, Vehicle 1
38-48	Vehicle 2	---	Interior views, Vehicle 1
49-56	Vehicle 2	---	Airbag, Airbag module







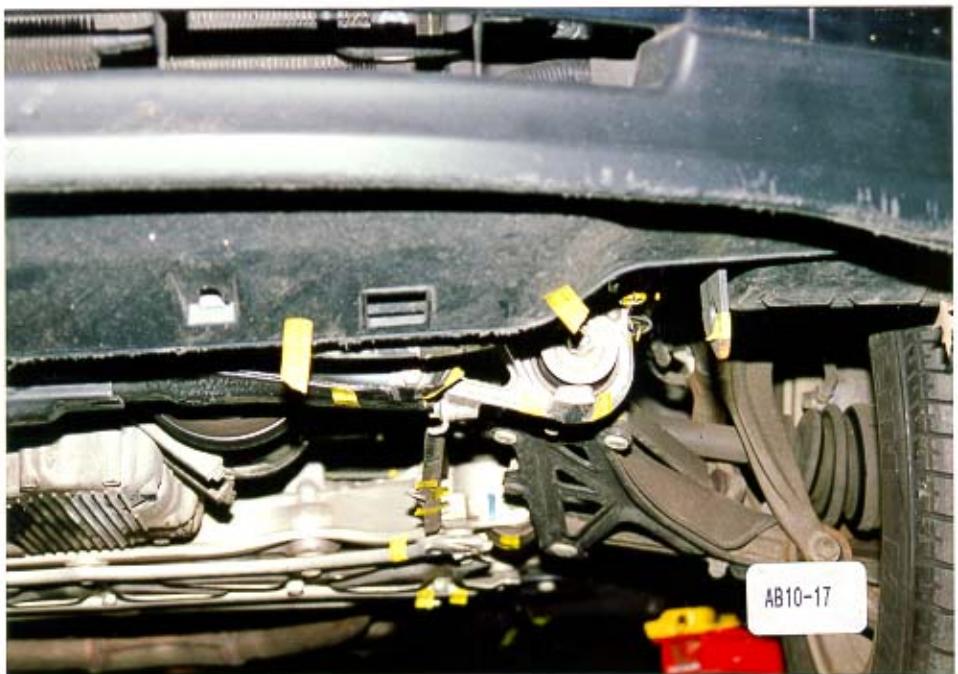




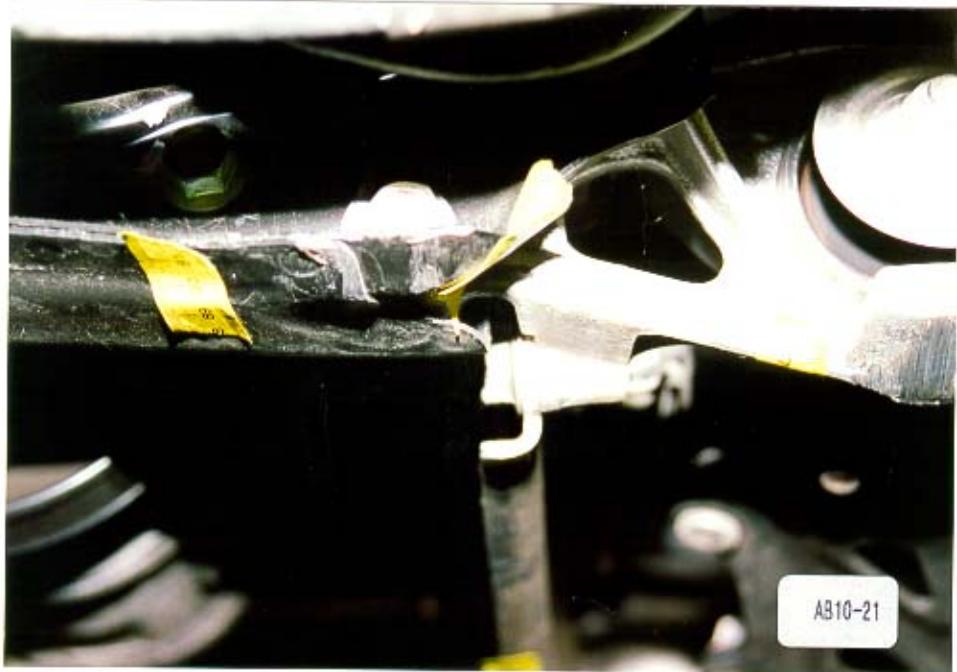




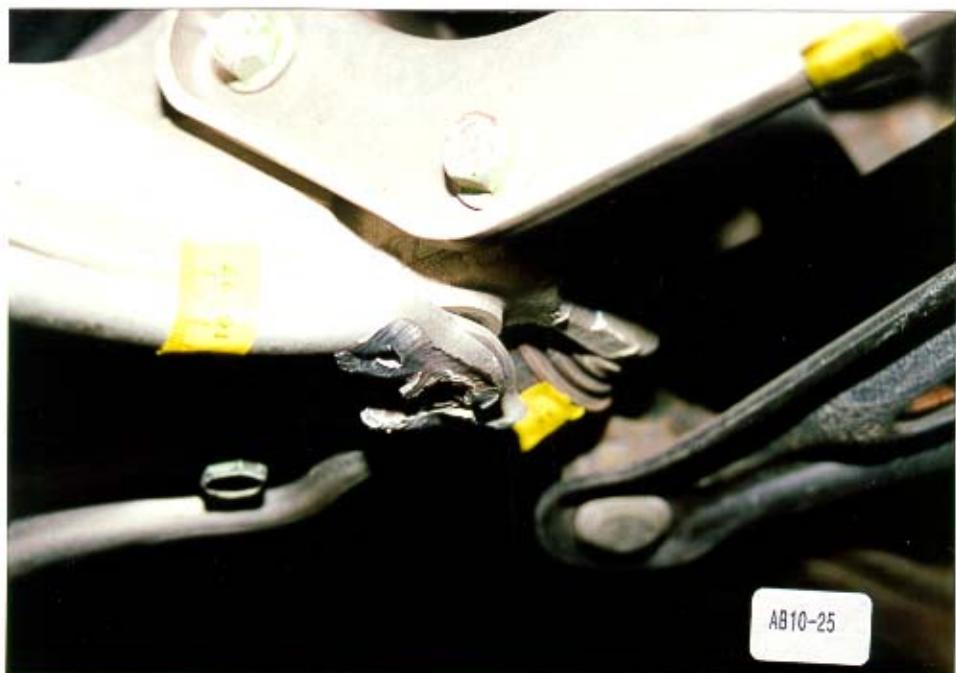




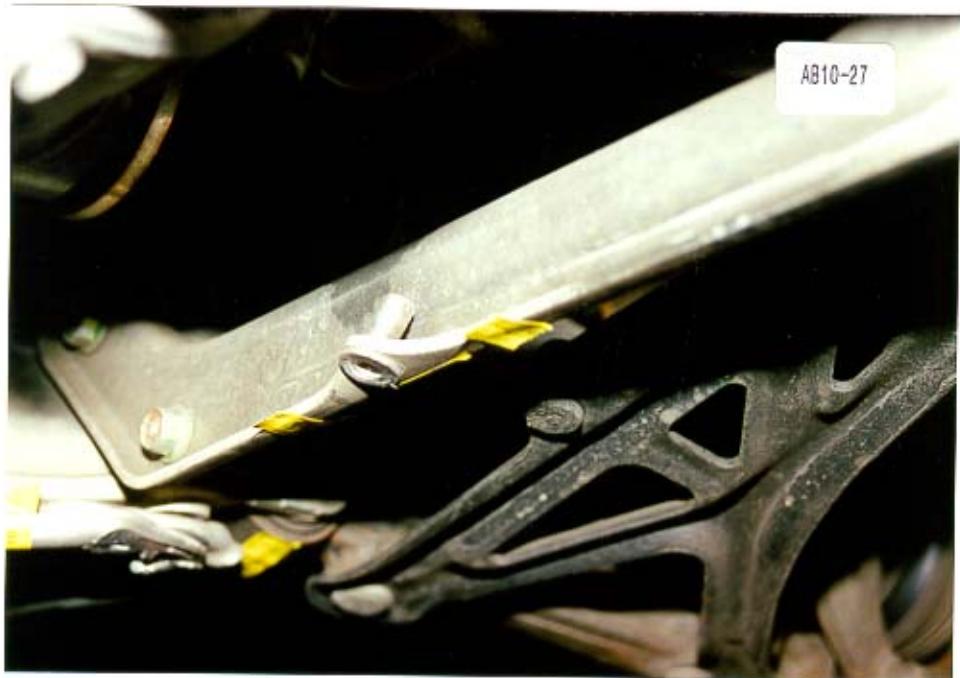








AB10-27



AB10-28

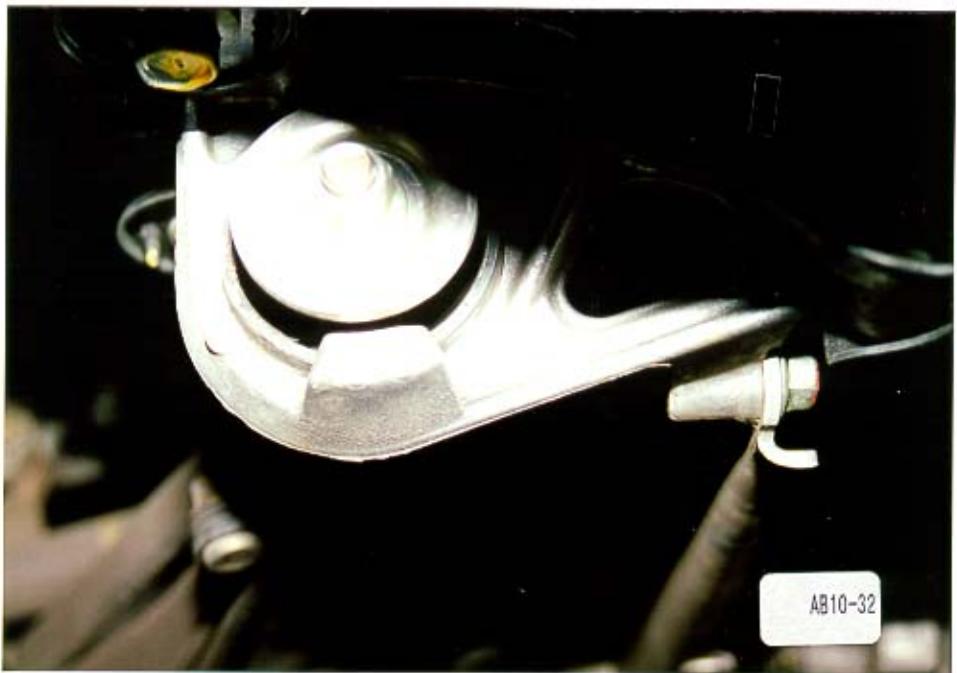


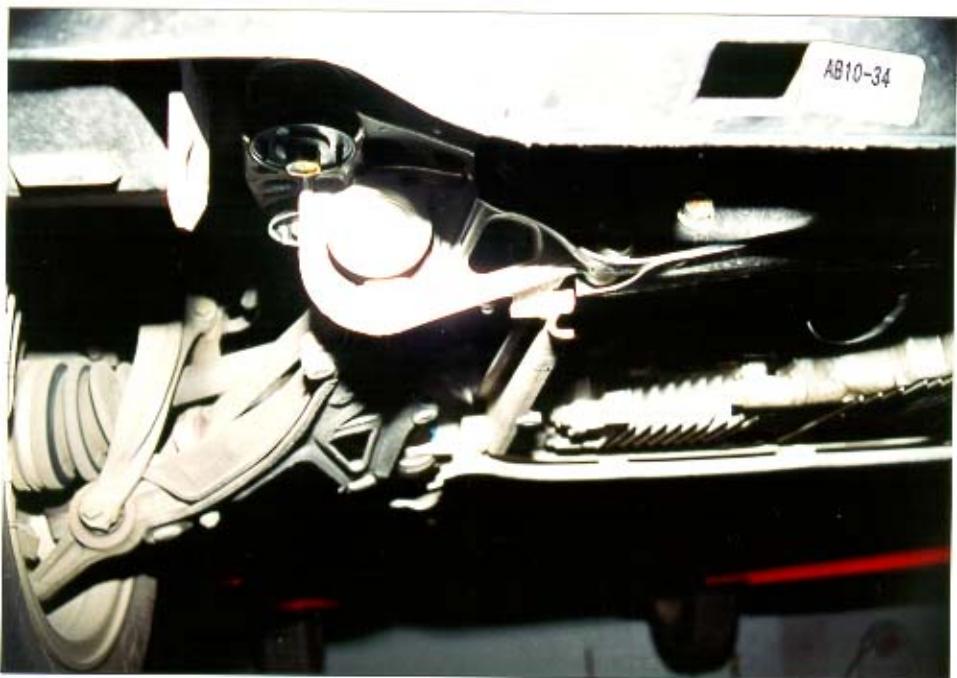


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AB10-32





AB10-35



AB10-36











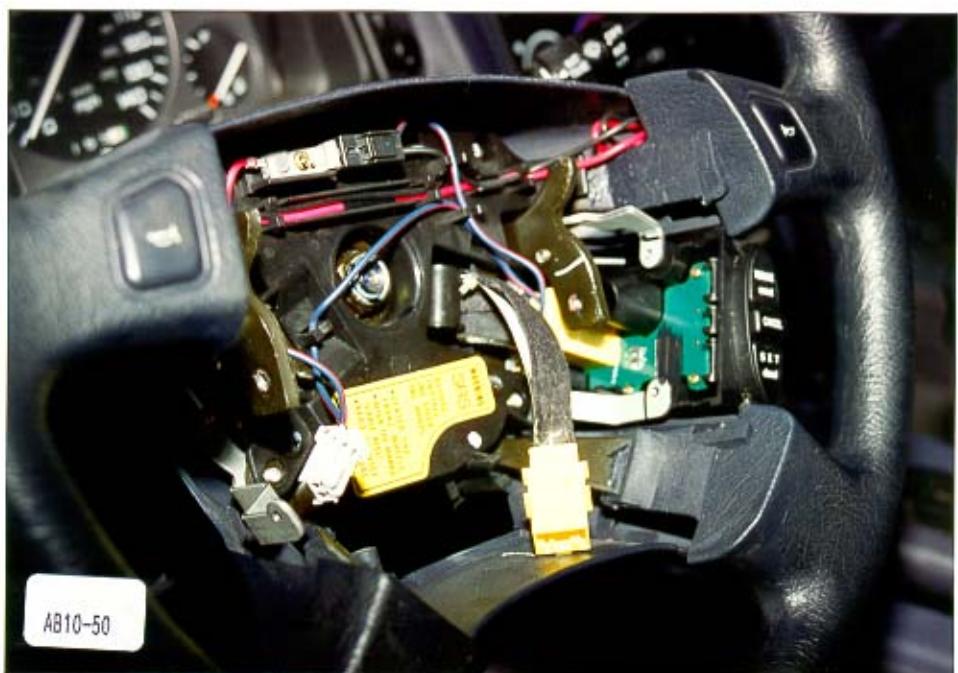


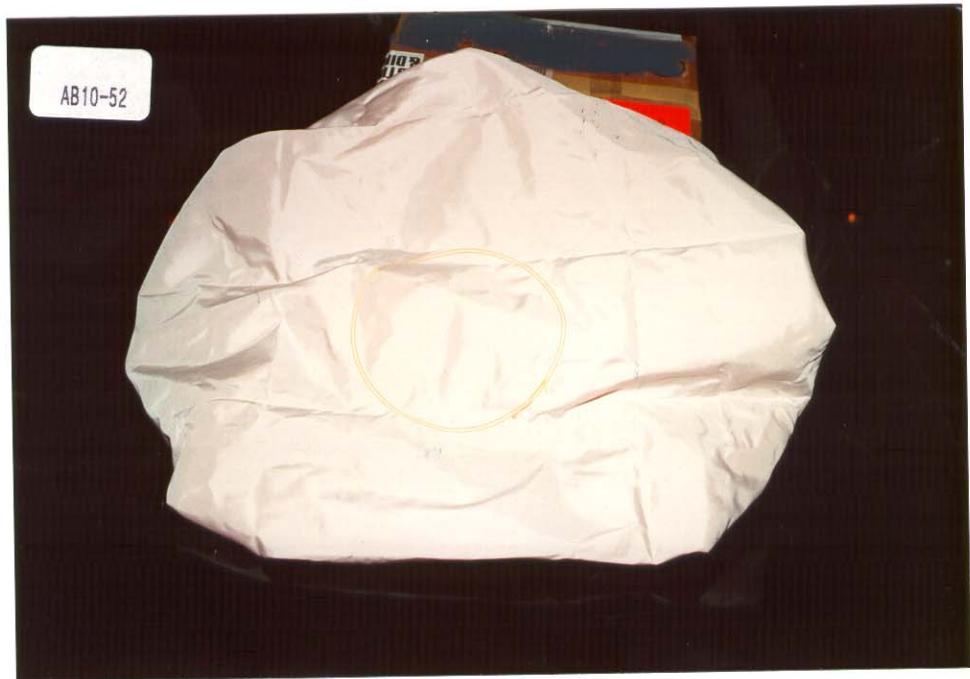
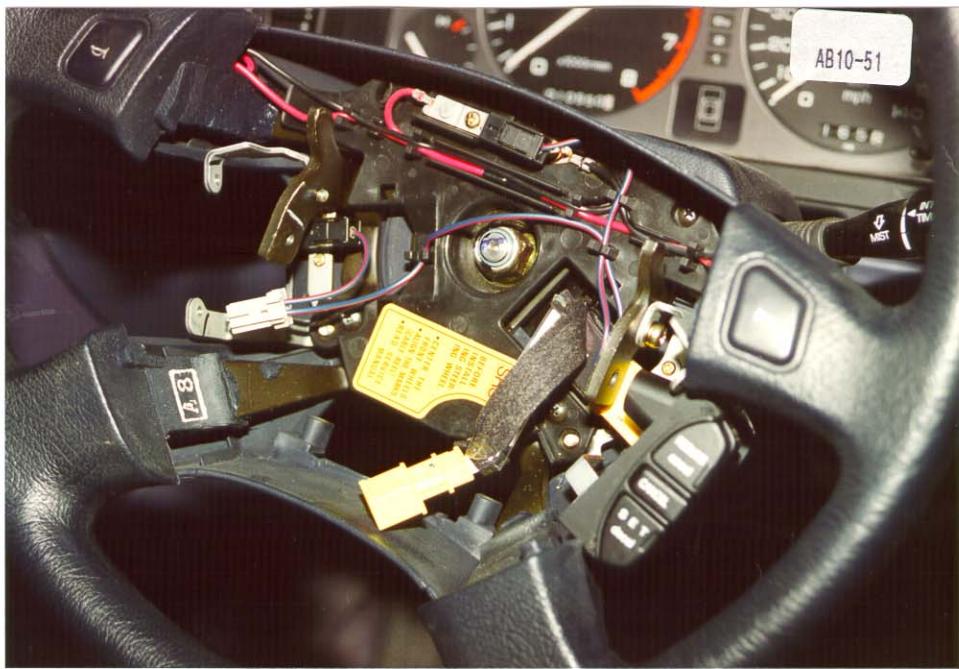


AB10-47

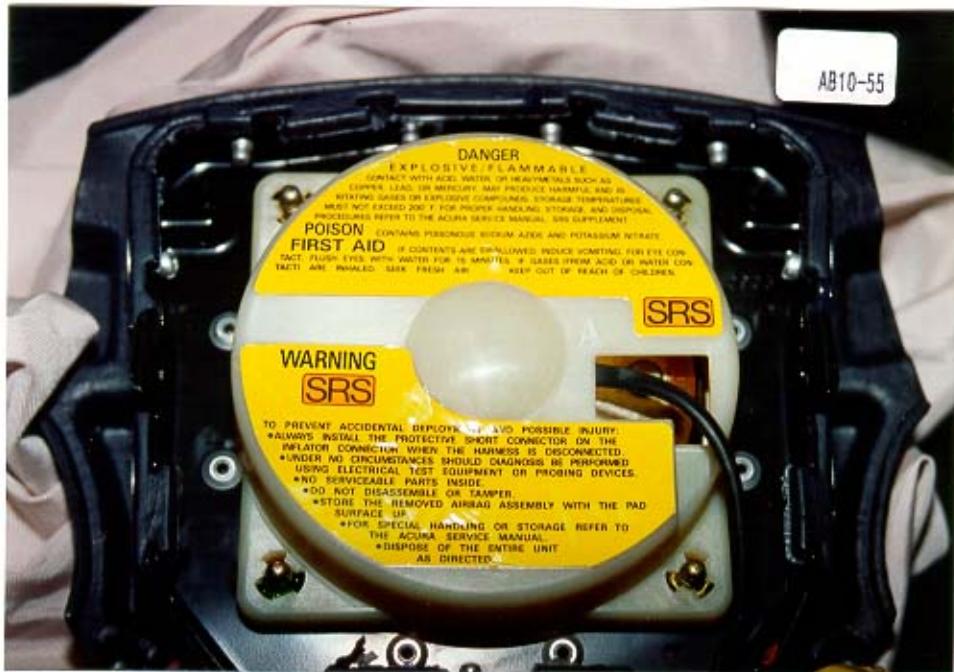


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## SLIDE INDEX

Case No. DSI-93-AB-010

SLIDE NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
1	Vehicle 1	north	Approach path, Vehicle 1
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8	Vehicle 1	south	POI, Vehicle 1
9	Vehicle 1	north	Reverse travel path, Vehicle 1
10-15	Vehicle 1	CCW	Exterior views, Vehicle 1
16-27	Vehicle 1	front to rear	Left side undercarriage, Vehicle 1
28-29	Vehicle 1	rear to front	Left side undercarriage, Vehicle 1
30-32	Vehicle 1	front to rear	Right side undercarriage, Vehicle 1
33-42	Vehicle 1	---	Interior views, Vehicle 1
43-50	Vehicle 1	---	Airbag, Airbag module



DS9310 #1



DS9310 #2



DS9310 #3



DS9310 84



DS9310 #5



DS9310 46



DS9310 #7



DS9310 #8



DS9910 #9



DS 8310 #10



DS 8310 #11



DS 9310 #12



DS9310 #13



DS 8310 #14



DS9310 #15



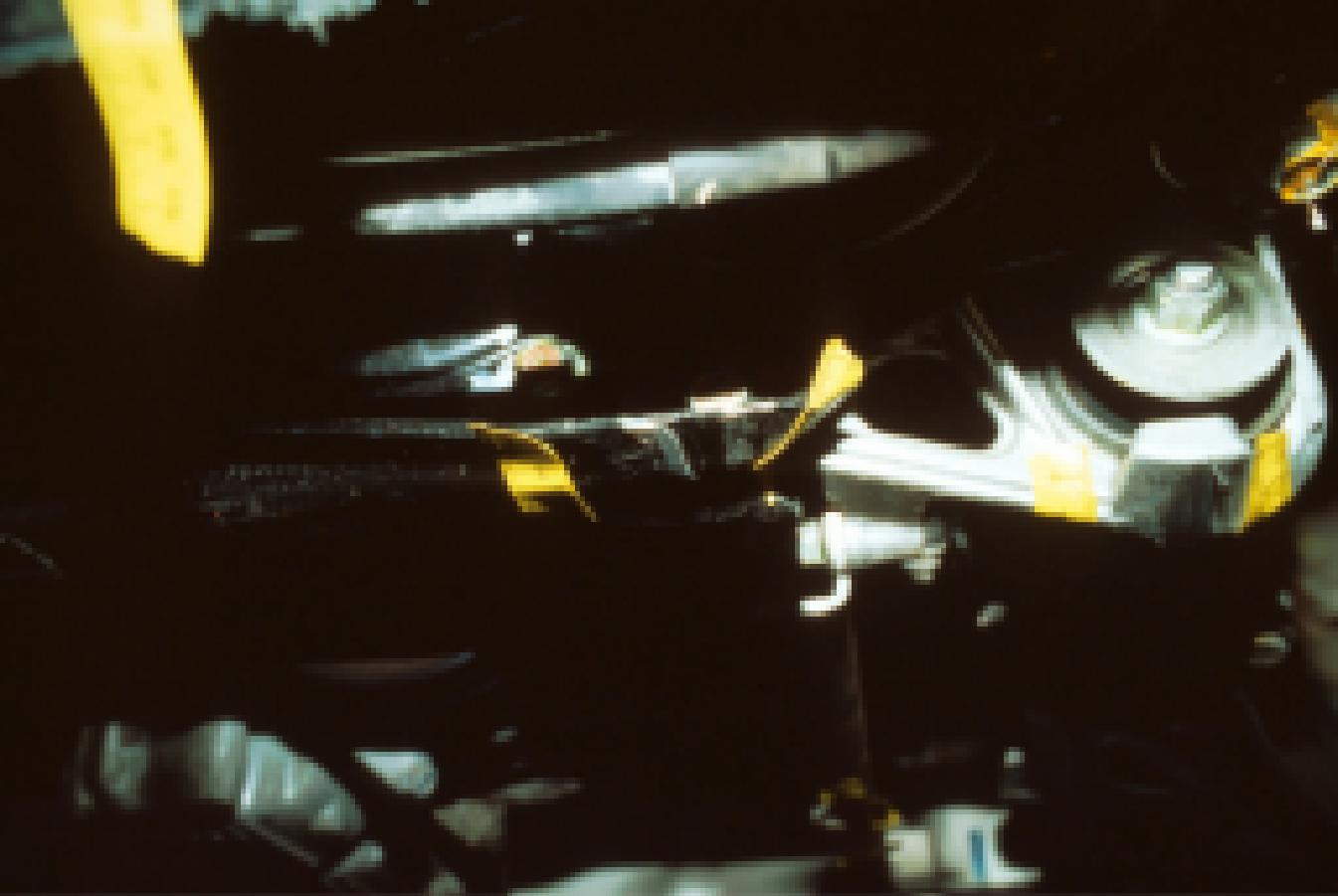
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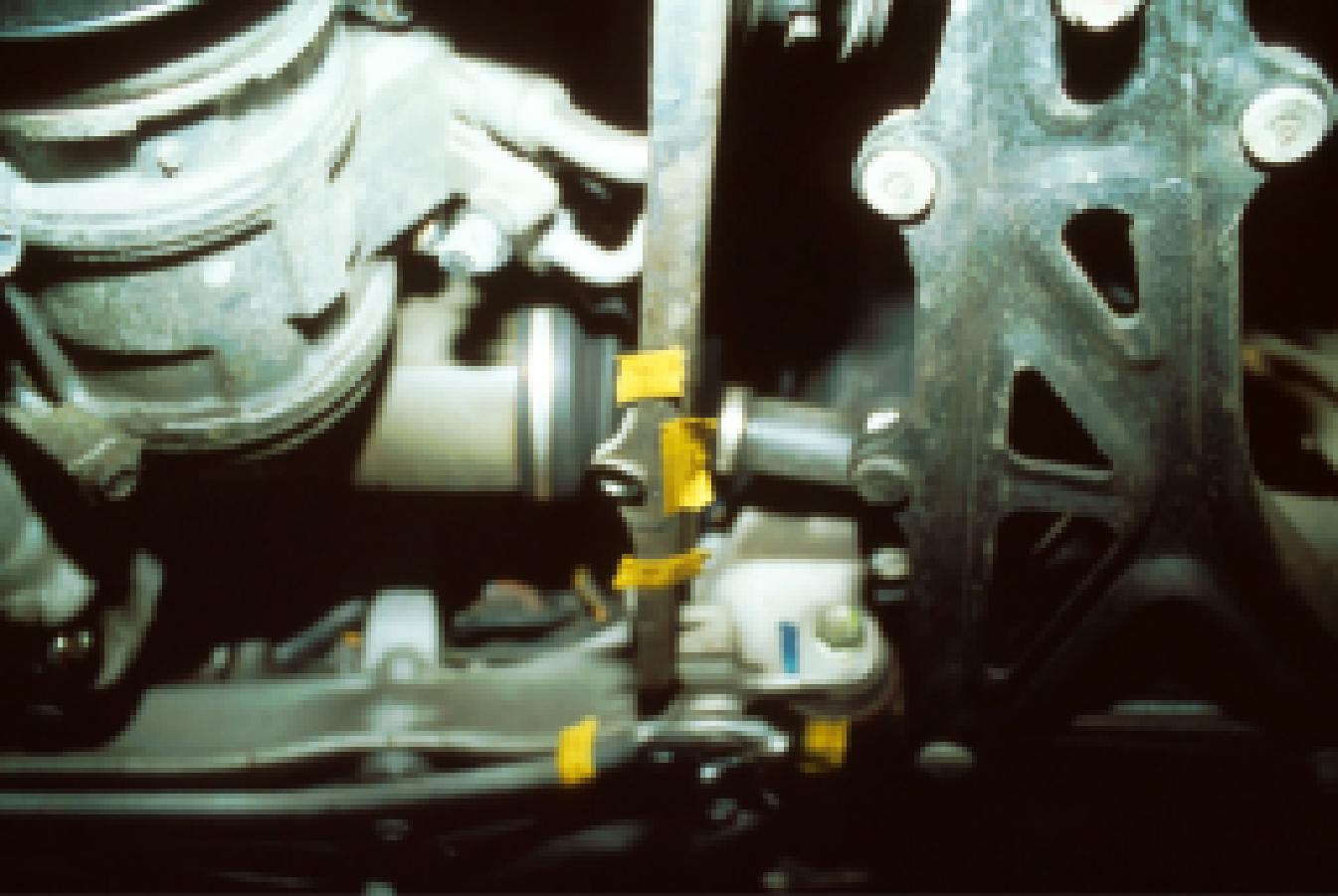
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DS9310 #19  
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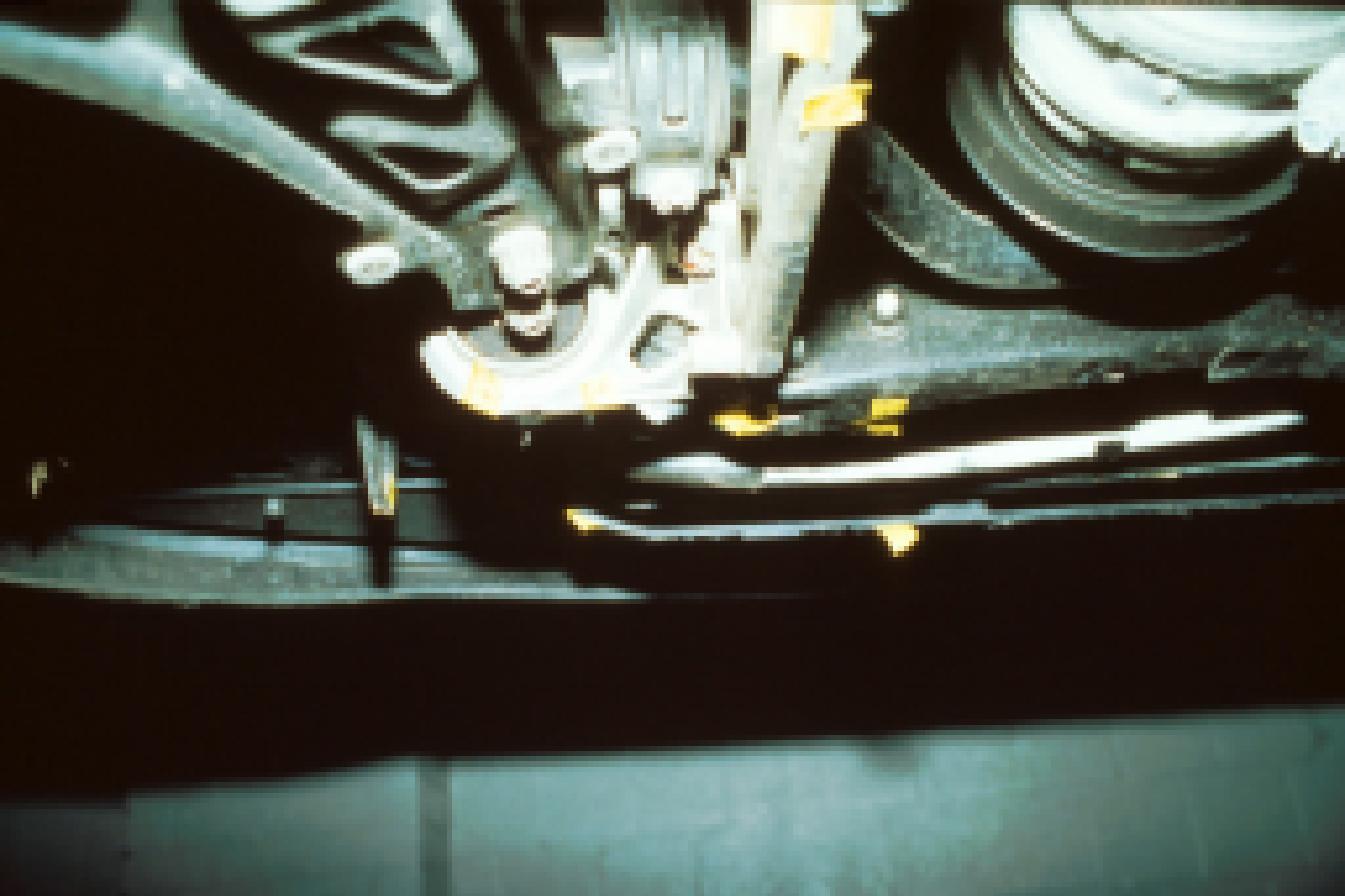
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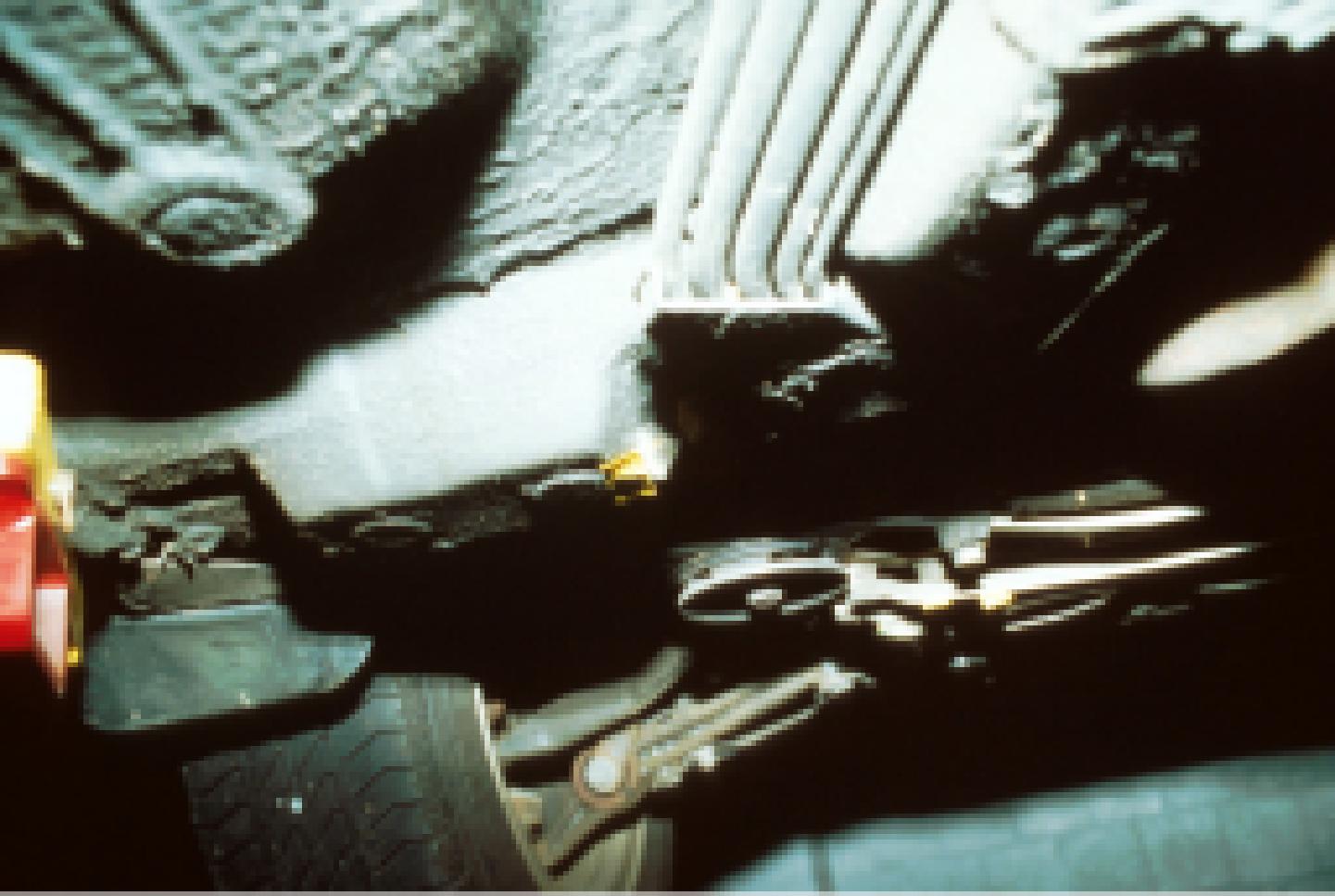
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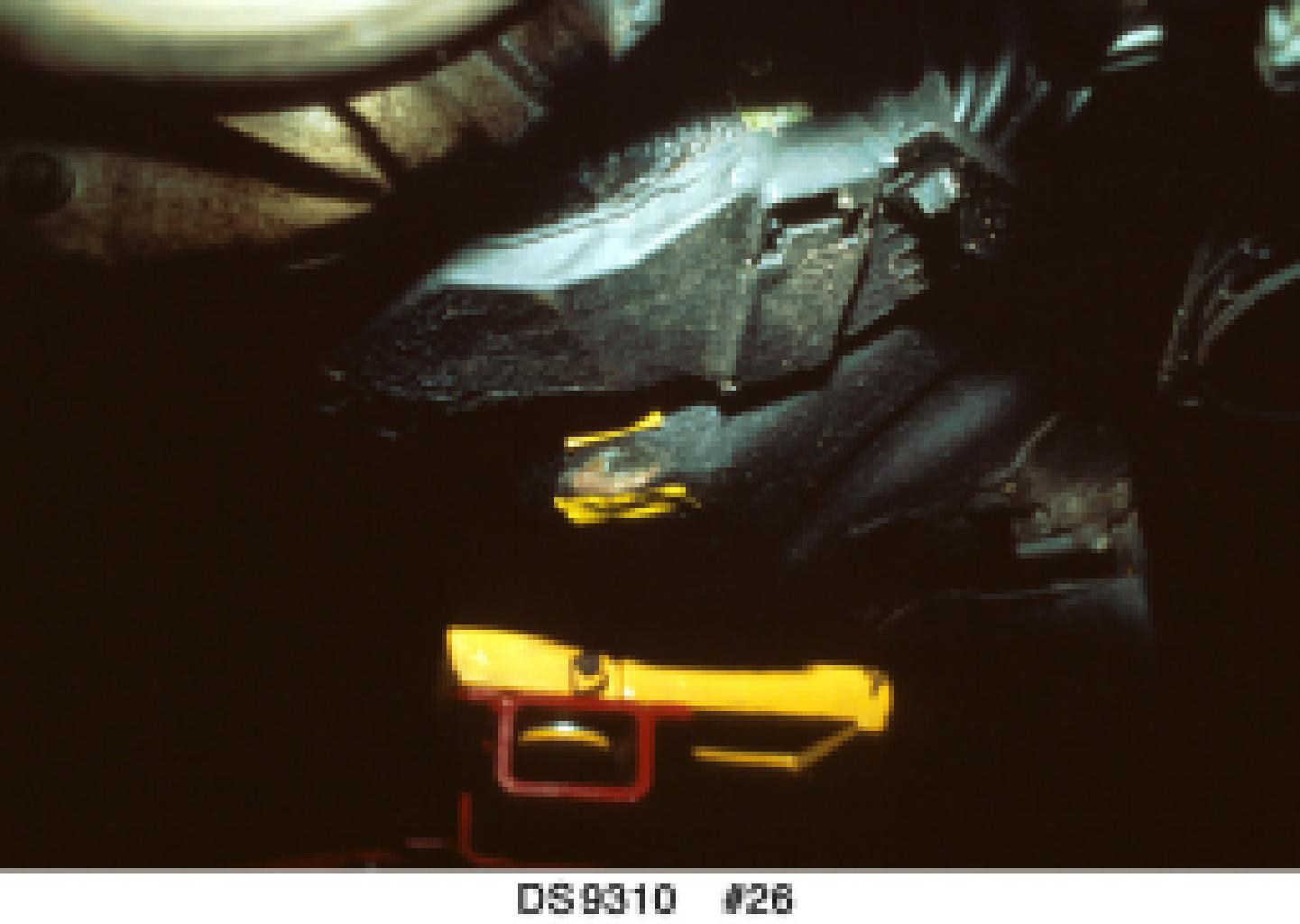
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DS9310 #24  
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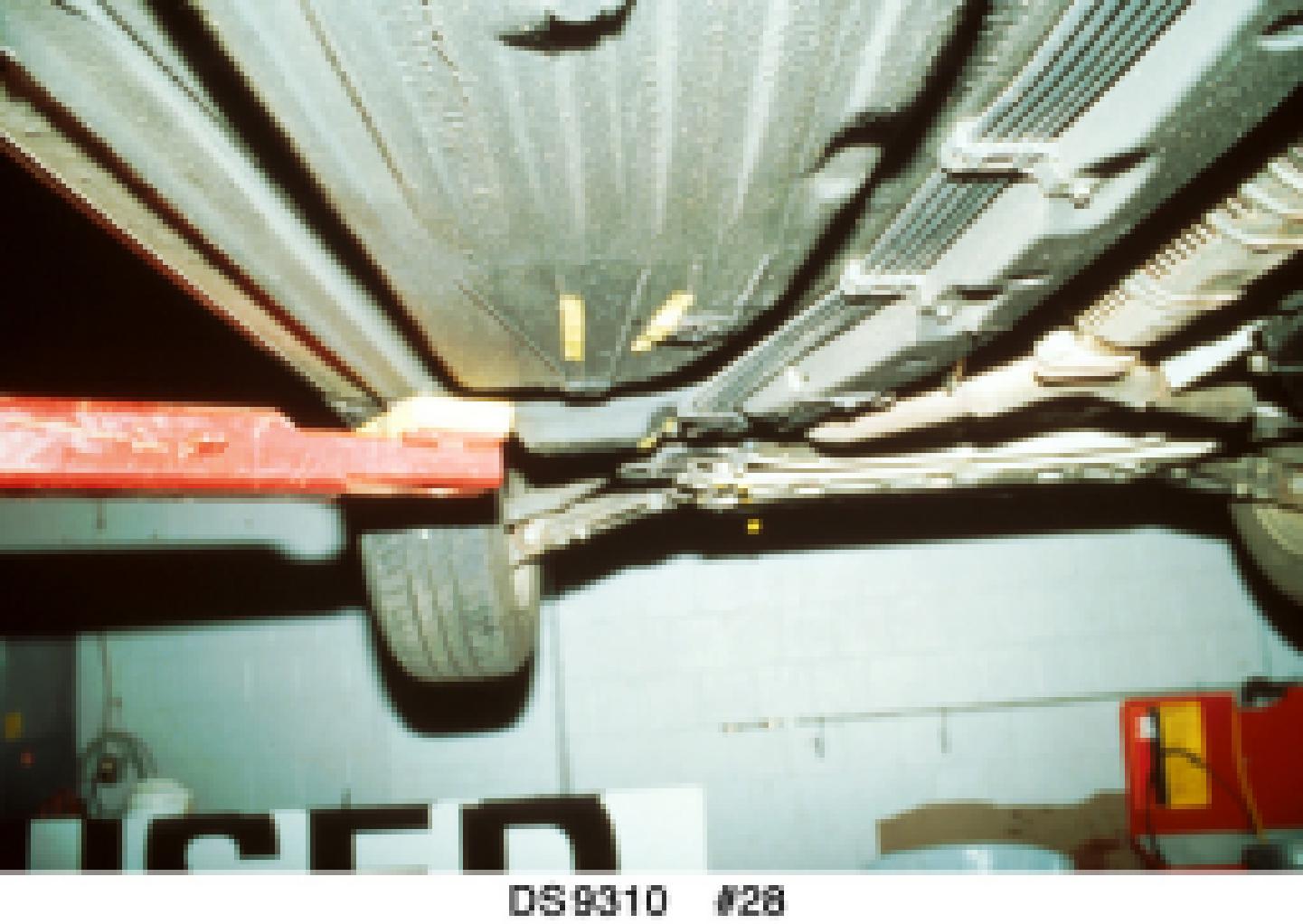
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DS 9310 #26



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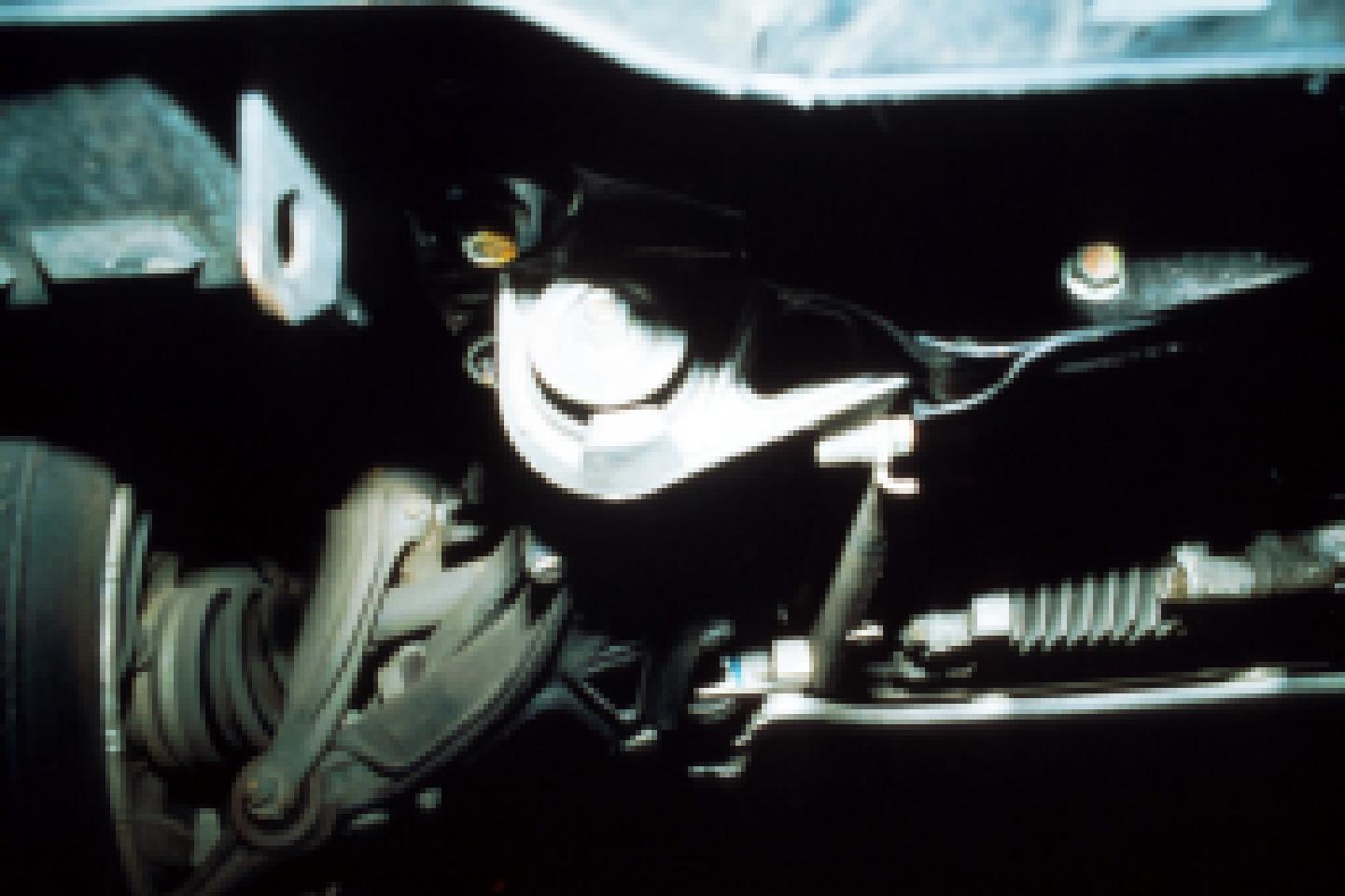


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DS 9310 #29  
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DS 0310 #30



DS8310 #31



DS9310 #32



DS 8310 #33



DS 9310 #34



DS 9310 #35



D89310 #36



DS9310 #37



DS9310 #38



DS9310 #39



DS9310 #40



DS9310 #41



DS 9310 #42

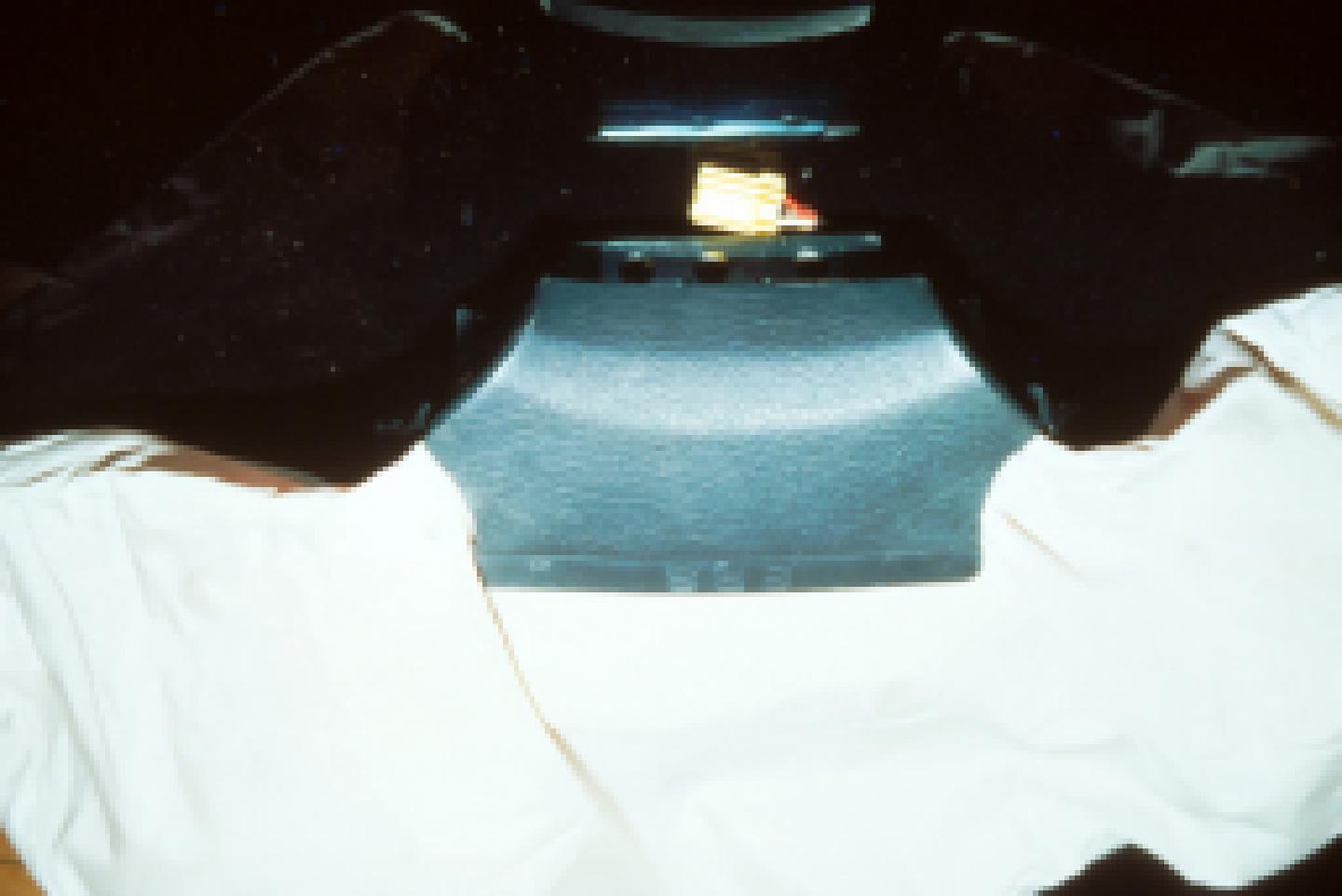


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5

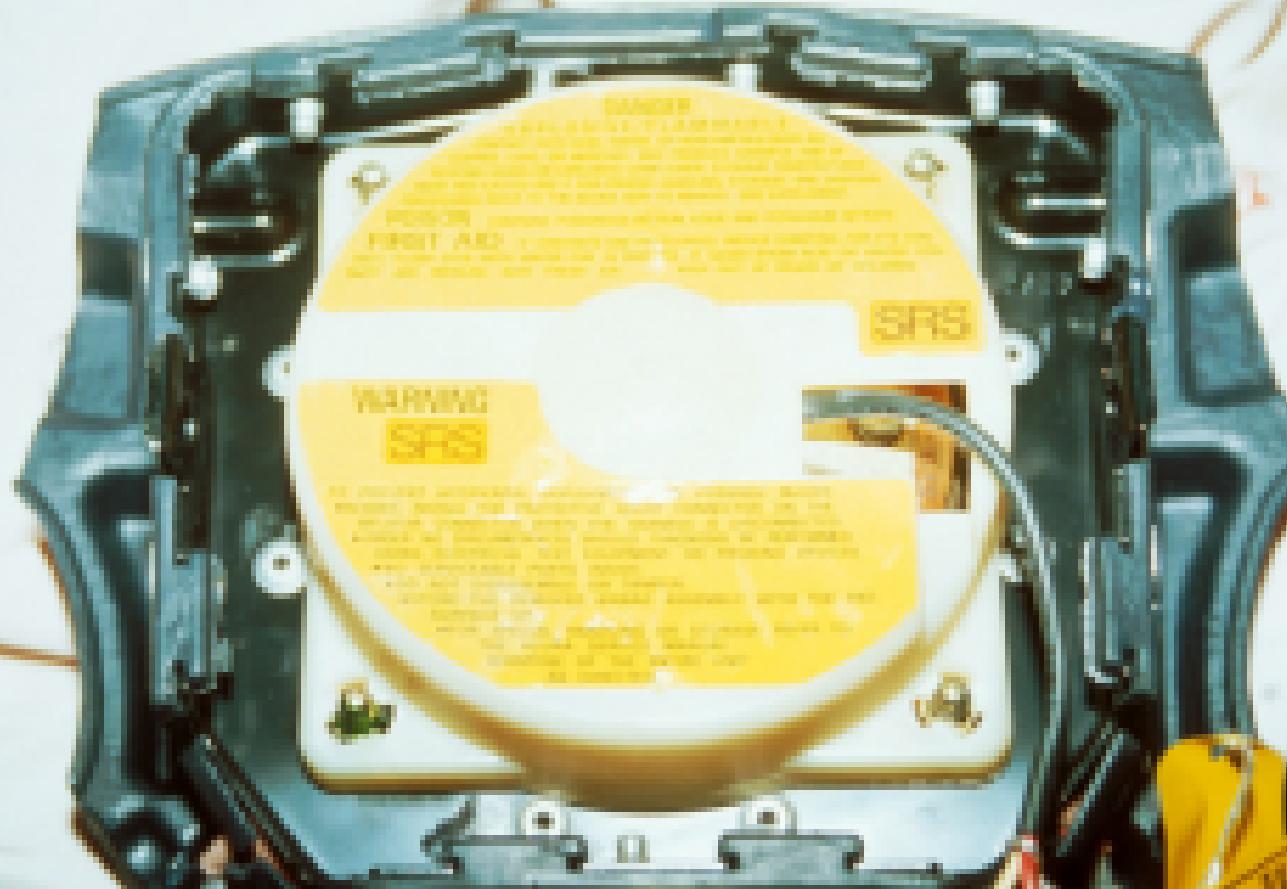
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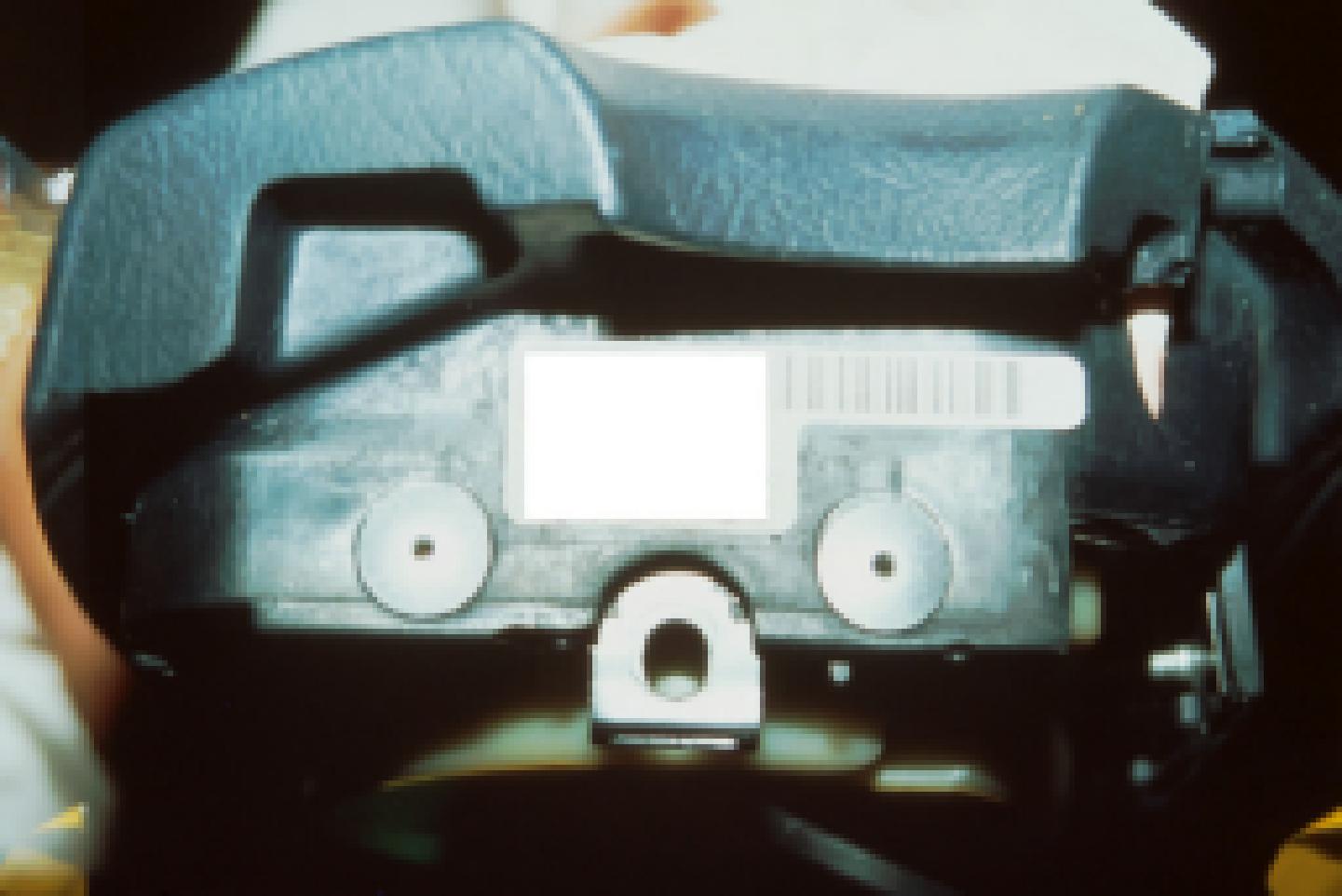
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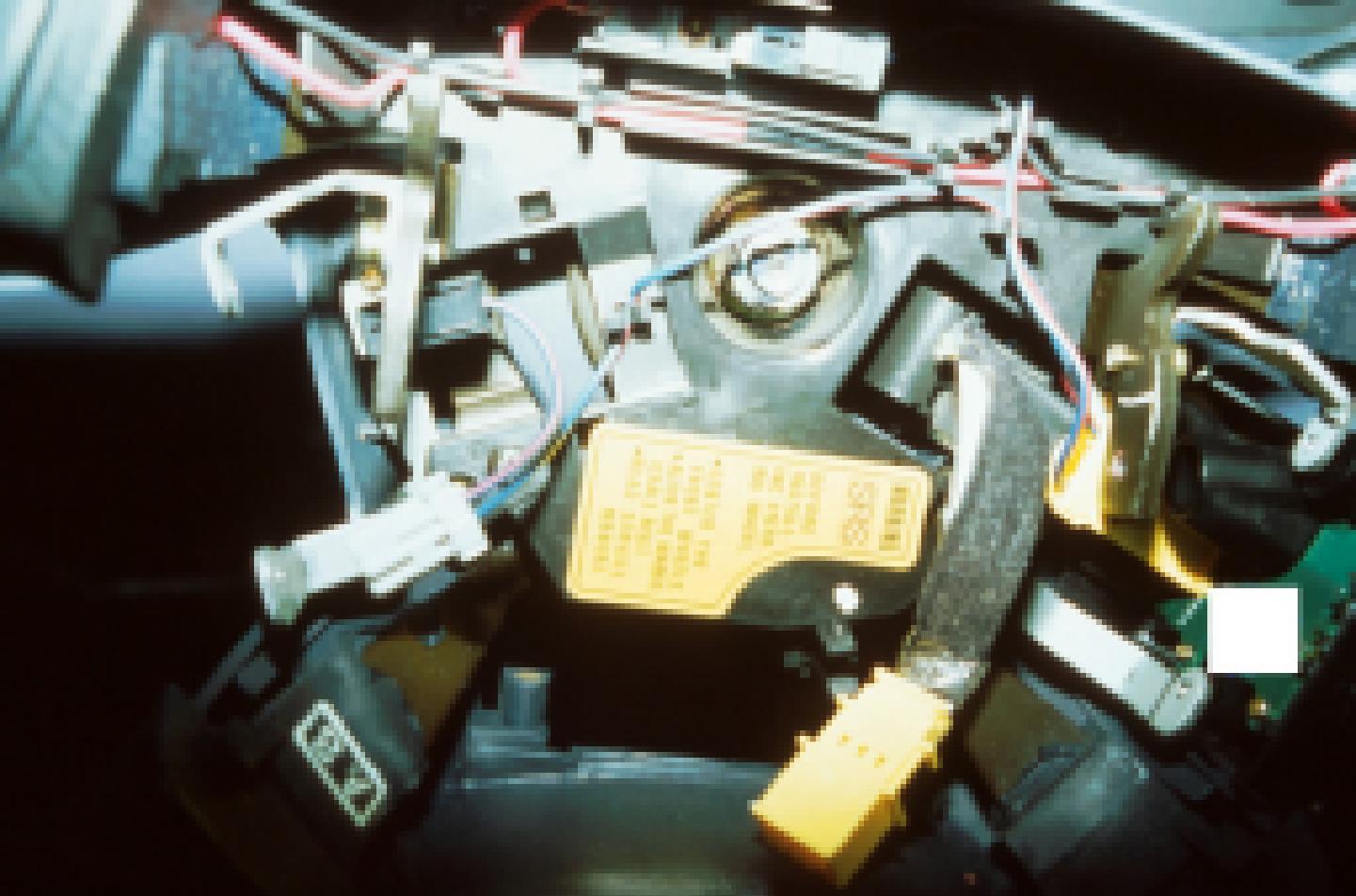
DS9310 #47



DS 8310 #48



D89310 449



DS 0310 #50



# ACCIDENT FORM

1. Primary Sampling Unit Number \_\_\_\_\_  
2. Case Number - Stratum DSI-93-AB-Φ16

## IDENTIFICATION

3. Number of General Vehicle Forms Submitted Φ1

4. Date of Accident (Month, Day, Year) SUMMER/WEEKEND 1 9 3

5. Time of Accident NIGHT  
Code reported military time of accident.

NOTE: Midnight = 2400  
Unknown = 9999

## SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. SS14 Fatal AOPS Φ

7. SS15 Administrative Use Φ

8. SS16 \_\_\_\_\_ Φ

9. SS17 \_\_\_\_\_ Φ

10. SS18 \_\_\_\_\_ Φ

## NUMBER OF EVENTS

11. Number of Recorded Events in This Accident Φ1

Code the number of events which occurred in this accident.

## ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>0 1</u>	13. <u>Φ 1</u>	14. <u>Φ 5</u>	15. <u>1</u>	16. <u>6 8</u>	17. <u>Φ Φ</u>	18. <u>Φ</u>
19. <u>0 2</u>	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____
26. <u>0 3</u>	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____
33. <u>0 4</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
40. <u>0 5</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

## CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

## CODES FOR GENERAL AREA OF DAMAGE (GAD)

### CDS APPLICABLE AND OTHER VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

### TDC APPLICABLE VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

## CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

### (01-30) — Vehicle Number

#### Noncollision

- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):

---

- (35) Noncollision injury
- (38) Other noncollision (specify):

---

- (39) Noncollision — details unknown

#### Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
  
- (45) Breakaway pole or post (any diameter)

#### Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
  
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify):

#### (57) Fence

- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify):  
Raised manhole type and cover
- (69) Unknown fixed object

#### Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance

#### (75) Vehicle occupant

- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify):

---

- (89) Unknown nonfixed object

#### (98) Other event (specify):

#### (99) Unknown event or object



# GENERAL VEHICLE FORM

1. Primary Sampling Unit Number	9	11. Police Reported Alcohol Presence	9
2. Case Number - Stratum	DSI-93-AB-010	(0) No alcohol present	
3. Vehicle Number	01	(1) Yes (alcohol present)	
<b>VEHICLE IDENTIFICATION</b>			
4. Vehicle Model Year	9 1	(7) Not reported	
Code the last two digits of the model year		(8) No driver present	
(99) Unknown		(9) Unknown	
5. Vehicle Make (specify):	5 4	Note: See variables 37 through 55 (Page 4) for information on Other Drugs	
ACURA		12. Alcohol Test Result For Driver	
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.		Code actual value (decimal implied before first digit—0.xx)	
(99) Unknown		(95) Test refused	
6. Vehicle Model (specify):		(96) None given	
LEGEND L		(97) AC test performed, results unknown	
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.		(98) No driver present	
(99) Unknown		(99) Unknown	
7. Body Type	0 4	Source: <u>No POLICE INVESTIGATION</u>	
Note: Applicable codes may be found on the back of this page.		<b>ACCIDENT RELATED</b>	
8. Vehicle Identification Number	1 4 K A 7 6 5 4 M C -----	13. Speed Limit	0 4 0
Left justify; Slash zeros and letter Z (0 and Z) No VIN—Code all zeros Unknown—Code all nine's		(000) No statutory limit	
		Code posted or statutory speed limit in kph	
		(999) Unknown	
<b>OFFICIAL RECORDS</b>			
9. Police Reported Vehicle Disposition	9	14. Attempted Avoidance Maneuver	0 1
(0) Not towed due to vehicle damage		(00) No impact	
(1) Towed due to vehicle damage		(01) No avoidance actions	
(9) Unknown		(02) Braking (no lockup)	
10. Police Reported Travel Speed	9 9 9	(03) Braking (lockup)	
Code to the nearest kph (NOTE: 000 means less than 0.5 kph)		(04) Braking (lockup unknown)	
(160) 159.5 kph and above		(05) Releasing brakes	
(999) Unknown		(06) Steering left	
_____ mph X 1.6093 = _____ kph		(07) Steering right	
		(08) Braking and steering left	
		(09) Braking and steering right	
		(10) Accelerating	
		(11) Accelerating and steering left	
		(12) Accelerating and steering right	
		(97) No driver present	
		(98) Other action (specify):	
		(99) Unknown	
		15. Accident Type	1 2
		Applicable codes may be found on the back of page two of this field form	
		(00) No impact	
		Code the number of the diagram that best describes the accident circumstance	
		(98) Other accident type (specify):	
		(99) Unknown	

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### *Automobiles*

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_
- (09) Unknown automobile type

### *Automobile Derivatives*

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### *Utility Vehicles ( $\leq 4,500$ kgs GVWR)*

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samuri, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### *Van Based Light Trucks ( $\leq 4,500$ kgs GVWR)*

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,500$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,500$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,500$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,500$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### *Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)*

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500,)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### *Other Light Trucks ( $\leq 4,500$ kgs GVWR)*

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### *Buses (Excludes Van Based)*

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### *Medium/Heavy Trucks ( $> 4,500$ kgs GVWR)*

- (60) Step van ( $> 4,500$  kgs GVWR)
- (61) Single unit straight truck ( $4,500$  kgs  $<$  GVWR  $\leq$  8,850 kgs)
- (62) Single unit straight truck (8,850 kgs  $<$  GVWR  $\leq$  12,000 kgs)
- (63) Single unit straight truck ( $> 12,000$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

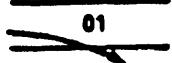
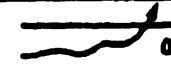
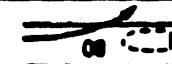
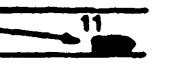
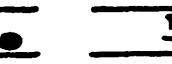
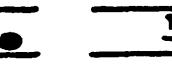
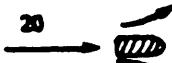
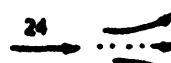
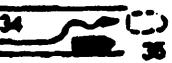
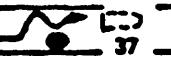
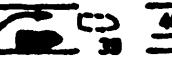
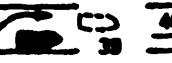
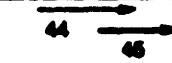
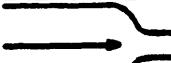
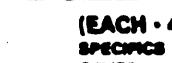
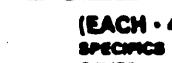
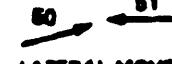
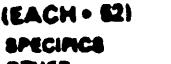
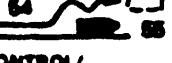
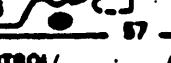
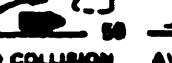
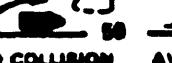
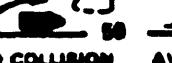
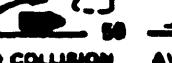
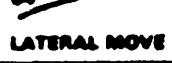
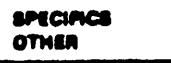
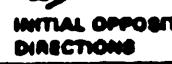
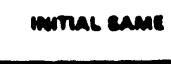
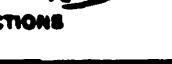
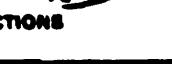
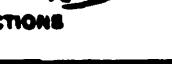
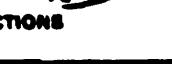
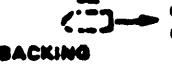
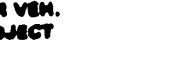
### *Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)*

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### *Other Vehicles*

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

OCCUPANT RELATED	
16. Driver Presence in Vehicle (0) Driver not present (1) Driver present (9) Unknown	1
17. Number of Occupants This Vehicle (00-96) Code actual number of occupants for this vehicle (97) 97 or more (99) Unknown	∅ 2
18. Number of Occupant Forms Submitted	∅ 2
VEHICLE WEIGHT ITEMS	
19. Vehicle Curb Weight _____ Code weight to nearest 10 kilograms. (045) Less than 450 kilograms (610) 6,100 kilograms or more (999) Unknown	1,580
$\emptyset 3,486 \text{ lbs} \times .4536 = 1,581 \text{ kgs}$	
Source: _____	
20. Vehicle Cargo Weight _____ Code weight to nearest 10 kilograms. (000) Less than 5 kilograms (450) 4,500 kilograms or more (999) Unknown	∅, ∅, ∅ 0
$\emptyset \text{ lbs} \times .4536 = \text{ kgs}$	
RECONSTRUCTION DATA	
21. Towed Trailing Unit (0) No towed unit (1) Yes—towed trailing unit (9) Unknown	∅
22. Documentation of Trajectory Data for This Vehicle (0) No (1) Yes	∅
23. Post Collision Condition of Tree or Pole (For Highest Delta V) (0) Not collision (for highest delta V) with tree or pole (1) Not damaged (2) Cracked/sheared (3) Tilted $< 45$ degrees (4) Tilted $\geq 45$ degrees (5) Uprooted tree (6) Separated pole from base (7) Pole replaced (8) Other (specify):  (9) Unknown	∅
24. Rollover (0) No rollover (no overturning)  <i>Rollover (primarily about the longitudinal axis)</i> (1) Rollover, 1 quarter turn only (2) Rollover, 2 quarter turns (3) Rollover, 3 quarter turns (4) Rollover, 4 or more quarter turns (specify):  (5) Rollover--end-over-end (i.e., primarily about the lateral axis) (9) Rollover (overturn), details unknown	
25. Front Override/Underride (this Vehicle)	
26. Rear Override/Underride (this Vehicle)	
(0) No override/underride, or not an end-to-end impact	
<i>Override (see specific CDC)</i> (1) 1st CDC (2) 2nd CDC (3) Other not automated CDC (specify):	
<i>Underride (see specific CDC)</i> (4) 1st CDC (5) 2nd CDC (6) Other not automated CDC (specify):	
(7) Medium/heavy truck or bus override (9) Unknown	
HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V	
Values: (000)-(359) Code actual value (997) Noncollision (998) Impact with object (999) Unknown	
27. Heading Angle For This Vehicle	9 9 8
28. Heading Angle For Other Vehicle	9 9 8

Category	Configuration	ACCIDENT TYPES (Includes Intent)					
I Single Driver	A Right Roadside Departure				04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN	
	B Left Roadside Departure				09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN	
	C Forward Impact					15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End						
	E Forward Impact						
III Same Trafficway (Opposite Direction)	F Sideswipe Angle					(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN
	G Head-On			(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact						
IV Change Trafficway Vehicle Turning	I. Sideswipe Angle			(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
	J. Turn Across Path						
V Intersecting Paths (Vehicle Damage)	K. Turn Into Path						
	L. Straight Paths					(EACH • 80) SPECIFICS OTHER	(EACH • 81) SPECIFICS UNKNOWN
VI Miscellaneous	M. Backing Etc.			84 OTHER VEH. OR OBJECT	85 OTHER VEH. OR OBJECT	86 Unknown Accident Type	87 No Impact

## 29. Basis for Total Delta V (highest)

4*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

*Delta V Not Calculated*

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

**COMPUTER GENERATED DELTA V**

Secondary      Highest

## 30. Total Delta V

9 9 9

\_\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: 000 means less than 0.5 kph)  
 (160) 159.5 kph and above  
 (999) Unknown

## 31. Longitudinal Component of Delta V

+      — 9 9 9

\_\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: 000 means greater than -0.5 kph and less than +0.5 kph)  
 (±160) ± 159.5 kph and above  
 (—999) Unknown

Secondary      Highest

+      — 9 9 9

## 32. Lateral Component of Delta V

\_\_\_\_\_ Nearest kph \_\_\_\_\_

(NOTE: 000 means greater than -0.5 kph and less than +0.5 kph)  
 (±160) ± 159.5 kph and above  
 (—999) Unknown

## 33. Energy Absorption

9 9 9 . 9 0 0

\_\_\_\_\_ Nearest 100 joules \_\_\_\_\_

(NOTE: 0000 means less than 50 joules)  
 (9997) 999,650 joules or more  
 (9999) Unknown

## 34. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

## 35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):  
\_\_\_\_\_

## 36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [X] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

<p>37. Police Reported Other Drug Presence <u>9</u></p> <p>(0) No other drugs present      (1) Yes (other drug present)      (7) Not reported      (8) No driver present      (9) Unknown</p>	<p><b>DRUG EVALUATION CLASSIFICATION</b>  <b>OTHER DRUGS TEST RESULTS FOR DRIVER</b></p> <table border="1"> <thead> <tr> <th></th> <th>DEC Test Results</th> <th>Specimen Test Results</th> </tr> </thead> <tbody> <tr> <td>Narcotic Drug</td> <td>40. <u>Ø</u></td> <td>41. <u>Ø</u></td> </tr> <tr> <td>Depressant Drug</td> <td>42. <u>Ø</u></td> <td>43. <u>Ø</u></td> </tr> <tr> <td>Stimulant Drug</td> <td>44. <u>Ø</u></td> <td>45. <u>Ø</u></td> </tr> <tr> <td>Hallucinogen Drug</td> <td>46. <u>Ø</u></td> <td>47. <u>Ø</u></td> </tr> <tr> <td>Cannabinoid Drug</td> <td>48. <u>Ø</u></td> <td>49. <u>Ø</u></td> </tr> <tr> <td>Phencyclidine (PCP)</td> <td>50. <u>Ø</u></td> <td>51. <u>Ø</u></td> </tr> <tr> <td>Inhalant Drug</td> <td>52. <u>Ø</u></td> <td>53. <u>Ø</u></td> </tr> <tr> <td>Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)</td> <td>54. <u>Ø</u></td> <td>55. <u>Ø</u></td> </tr> </tbody> </table>		DEC Test Results	Specimen Test Results	Narcotic Drug	40. <u>Ø</u>	41. <u>Ø</u>	Depressant Drug	42. <u>Ø</u>	43. <u>Ø</u>	Stimulant Drug	44. <u>Ø</u>	45. <u>Ø</u>	Hallucinogen Drug	46. <u>Ø</u>	47. <u>Ø</u>	Cannabinoid Drug	48. <u>Ø</u>	49. <u>Ø</u>	Phencyclidine (PCP)	50. <u>Ø</u>	51. <u>Ø</u>	Inhalant Drug	52. <u>Ø</u>	53. <u>Ø</u>	Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>Ø</u>	55. <u>Ø</u>
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<p>38. Police Reported Drug Evaluation Classification <u>Ø</u></p> <p>(DEC) Test For Driver      (0) No DEC process available or given      (1) DEC process given, results known      (2) DEC process given, results unknown      (3) DEC process available, unknown if given      (8) No driver present</p>	<p><b>Codes For DEC Test Results</b></p> <p>(0) No DEC test given      (1) Passed DEC test      (2) Failed DEC test      (3) DEC test given—results unknown      (8) No driver present      (9) Unknown if DEC test given</p>																											
<p>39. Other Drug Specimen Test Type For Driver <u>Ø</u></p> <p>(0) No specimen test given      (1) Blood test      (2) Urine test      (3) Other specimen tests (specify):      _____      (7) Unspecified specimen test      (8) No driver present      (9) Unknown if specimen test given</p>	<p><b>Codes for Specimen Test Results</b></p> <p>(0) No specimen test given      (1) Drug not found in specimen      (2) Drug found in specimen      (7) Specimen test given, results unknown or not obtained      (8) No driver present      (9) Unknown if specimen test given</p>																											

## OTHER DATA

## 56. Driver's Zip Code

(00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
 Code actual 5-digit zip code  
 (99999) Unknown

## 57. Driver's Race/Ethnic Origin

(0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify):  
 (9) Unknown

## 58. Vehicle Special Use (This Trip)

(0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Fire truck or car  
 (8) Other (specify):  
 (9) Unknown

## ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

## 59. Rollover Initiation Type

(0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type specify):  
 (9) Unknown rollover initiation type

## 60. Location of Rollover Initiation

(0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

## 61. Rollover Initiation Object Contacted

✓ ✓

## 62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

✓

(0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify):  
 (8) Non-contact rollover forces (specify):  
 (9) Unknown

## 63. Direction of Initial Roll

✓

(0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

## PRECRASH DATA

## 64. Pre-Event Movement (Prior to Recognition of Critical Event)

✓ ✓

(01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify):  
 (98) No driver present  
 (99) Unknown

## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

(00) No rollover  
(01-30) — Vehicle Number

### Noncollision

(31) Turn-over — fall-over  
(33) Jackknife

### Collision With Fixed Object

(41) Tree ( $\leq$  10 cm in diameter)  
(42) Tree ( $>$  10 cm in diameter)  
(43) Shrubbery or bush  
(44) Embankment  
  
(45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

(50) Pole or post ( $\leq$  10 cm in diameter)  
(51) Pole or post ( $>$  10 cm but  $\leq$  30 cm in diameter)  
(52) Pole or post ( $>$  30 cm in diameter)  
(53) Pole or post (diameter unknown)  
  
(54) Concrete traffic barrier  
(55) Impact attenuator  
(56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

(57) Fence  
(58) Wall  
(59) Building  
(60) Ditch or culvert  
(61) Ground  
(62) Fire hydrant  
(63) Curb  
(64) Bridge  
(68) Other fixed object (specify):  
  
(69) Unknown fixed object

### Collision with Nonfixed Object

(71) Motor vehicle not in-transport  
(76) Animal  
(77) Train  
(78) Trailer, disconnected in transport  
(88) Other nonfixed object (specify):  
  
(89) Unknown nonfixed object  
  
(98) Other event (specify):  
  
(99) Unknown event or object

## PRECRASH DATA (Continued)

65. Critical Precrash Event 15*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian - unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

For Corrective Actions Attempted see variable GV14  
(Attempted Avoidance Maneuver)

66. Precrash Stability After Avoidance Maneuver ✓

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) ✓

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



## **EXTERIOR VEHICLE FORM**

1. Primary Sampling Unit Number	_____	3. Vehicle Number	_____
2. Case Number - Stratum	<u>DSI-93-AB-010</u>		

## VEHICLE IDENTIFICATION

VIN J H 4 K A 7 6 5 4 M C \* \* \* \* \* \* \* \* Model Year 9 1

Vehicle Make (specify): ACURA      Vehicle Model (specify): LEGEND L 4-DOOR

## LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
Ø 1	LEFT FRONT UNDERCARRIAGE	NOT MEASURED

## CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

**Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.**

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

**Use as many lines/columns as necessary to describe each damage profile.**

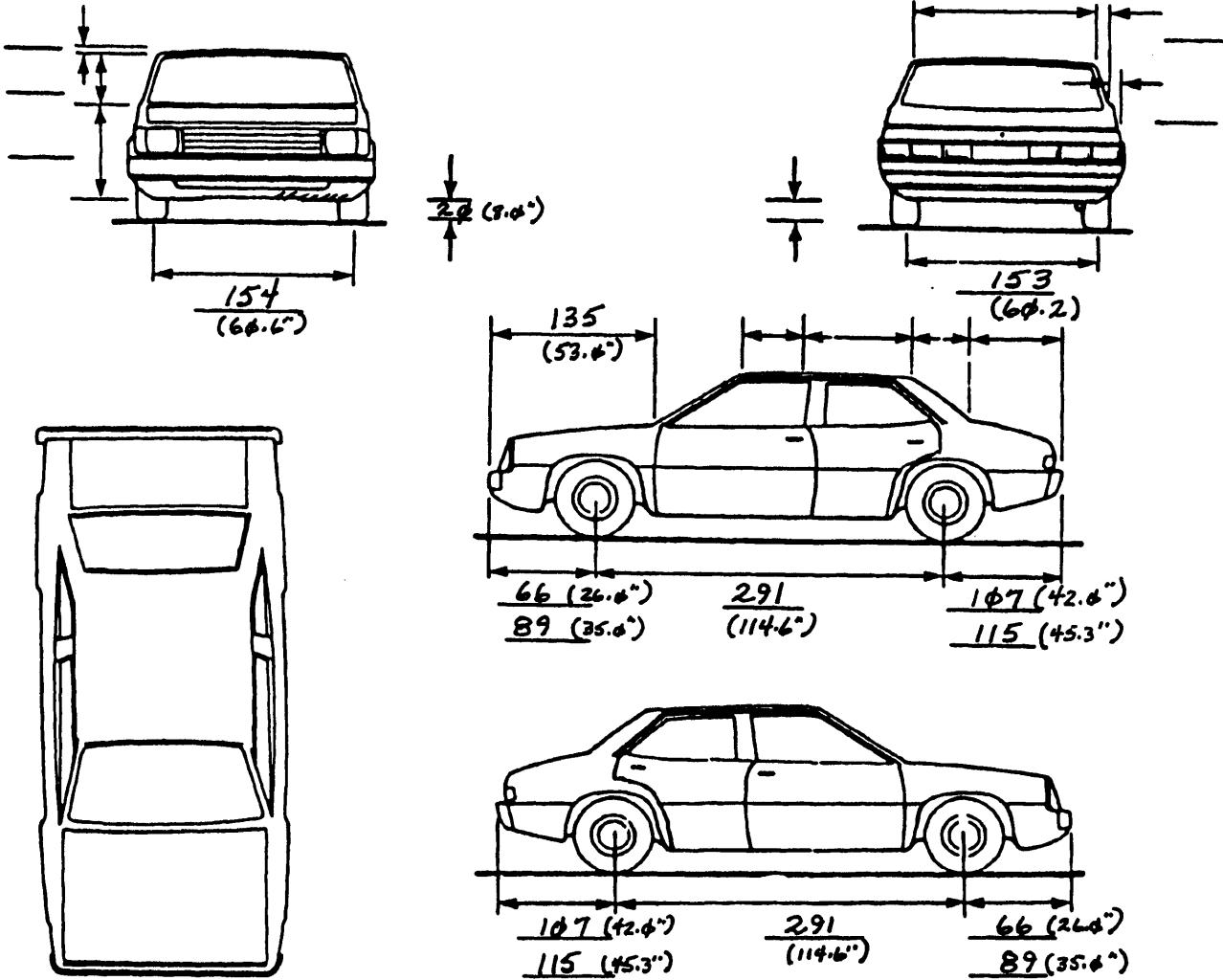
# ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>1</u> <u>1</u> <u>4</u> . <u>6</u>	inches x 2.54 =	<u>2</u> <u>9</u> <u>1</u> cm
Overall Length	<u>1</u> <u>9</u> <u>4</u> . <u>9</u>	inches x 2.54 =	<u>4</u> <u>9</u> <u>5</u> cm
Maximum Width	<u>1</u> <u>7</u> <u>1</u> . <u>3</u>	inches x 2.54 =	<u>1</u> <u>8</u> <u>1</u> cm
Curb Weight	<u>1</u> <u>3</u> , <u>4</u> <u>8</u> <u>6</u>	pounds x .4536 =	<u>1</u> , <u>5</u> <u>8</u> <u>1</u> kg
Average Track	<u>1</u> <u>6</u> <u>6</u> . <u>8</u>	inches x 2.54 =	<u>1</u> <u>5</u> <u>4</u> cm
Front Overhang	<u>1</u> <u>3</u> <u>5</u> . <u>4</u>	inches x 2.54 =	<u>1</u> <u>8</u> <u>9</u> cm
Rear Overhang	<u>1</u> <u>4</u> <u>5</u> . <u>3</u>	inches x 2.54 =	<u>1</u> <u>1</u> <u>5</u> cm
Undeformed End Width	<u>1</u> <u>6</u> <u>1</u> . <u>5</u>	inches x 2.54 =	<u>1</u> <u>5</u> <u>6</u> cm
Engine Size: cyl./displ.	<u>3</u> <u>2</u> <u>0</u> <u>0</u>	cc x .001 =	<u>3</u> . <u>2</u> L
	<u>1</u> <u>9</u> <u>5</u>	CID x .0164 =	<u>3</u> . <u>2</u> L

## VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE		ORIGINAL SPECIFICATIONS		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only)	
a. Rotation physically restricted	b. Tire deflated	Wheelbase	291	cm	RF $\pm$ _____ °
RF <u>2</u>	RF <u>2</u>	Overall Length	495	cm	LF $\pm$ _____ °
LF <u>2</u>	LF <u>2</u>	Maximum Width	181	cm	RR $\pm$ _____ °
RR <u>2</u>	RR <u>2</u>	Curb Weight	1,581	kg	LR $\pm$ _____ °
LR <u>2</u>	LR <u>2</u>	Average Track	154	cm	Within $\pm$ 5 degrees
(1) Yes (2) No (8) NA (9) Unk.		Front Overhang	89	cm	
TYPE OF TRANSMISSION		Rear Overhang	115	cm	<input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD
<input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		Undeformed End Width	156	cm	Approximate Cargo Weight <u>6</u> kg
Engine Size: cyl./displ. <u>V6/3.2</u> L					

## MEASUREMENTS IN CENTIMETERS



**NOTES:** Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.



## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>Φ</u> 1	5. <u>6</u> 8	6. <u>Φ</u> <u>Φ</u>	7. <u>U</u>	8. <u>Y</u>	9. <u>L</u>	10. <u>N</u>	11. <u>Φ</u> 2

## Second Highest Delta "V"

12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_ 16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>6</sub></u>	<u>C<sub>8</sub></u>	22. <u>±D</u>
-----	-----	-----	-----	-----	-----	-----	-----

Not measured - CDC only + ----- - -----

## Second Highest Delta "V"

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>6</sub></u>	<u>C<sub>8</sub></u>	25. <u>±D</u>
-----	-----	-----	-----	-----	-----	-----	-----

26. Are CDCs Documented but Not Coded on The Automated File?  
 (0) No  
 (1) Yes

Φ

27. Researcher's Assessment of Vehicle Disposition  
 (0) Not towed due to vehicle damage  
 (1) Towed due to vehicle damage  
 (9) Unknown

Φ

28. Original Wheelbase \_\_\_\_\_ Code to the nearest centimeter  
 (999) Unknown

291114.6 inches X 2.54 = 291 centimeters

29. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle? *✓*  
(0) No post manufacturer modifications  
(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

(Include photograph of CERTIFICATION  
PLACARD in case report)

(9) Unknown if vehicle is modified

30. Fire Occurrence *✓*  
(0) No fire

Yes, fire occurred  
(1) Minor  
(2) Major  
(9) Unknown

31. Origin of Fire *✓*  
(0) No fire  
(1) Vehicle exterior (front, side, back, top)  
(2) Exhaust system  
(3) Fuel tank (and other fuel retention  
system parts)  
(4) Engine compartment  
(5) Cargo/trunk compartment  
(6) Instrument panel  
(7) Passenger compartment area  
(8) Other location (specify): \_\_\_\_\_  
(9) Unknown

32. Type of Fuel Tank *1*  
(0) No fuel tank (electrical vehicle)  
(1) Metallic  
(2) Non-metallic  
(9) Unknown

\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS \*\*\*  
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



# INTERIOR VEHICLE FORM

## GLAZING

### Glazing Damage from Impact Forces

15. WS Ø 16. LF Ø 17. RF Ø 18. LR Ø 19. RR Ø  
20. BL Ø 21. Roof Ø 22. Other Ø

- (0) No glazing damage from impact forces
- (1) Glazing in place and cracked from impact forces
- (2) Glazing in place and holed from impact forces
- (3) Glazing out-of-place (cracked or not) and not holed from impact forces
- (4) Glazing out-of-place and holed from impact forces
- (5) Glazing disintegrated from impact forces
- (6) Glazing removed prior to accident
- (7) No glazing
- (8) Unknown if damaged

### Glazing Damage from Occupant Contact

23. WS Ø 24. LF Ø 25. RF Ø 26. LR Ø 27. RR Ø  
28. BL Ø 29. Roof Ø 30. Other Ø

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (7) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø

### Type of Window/Windshield Glazing

31. WS Ø 32. LF Ø 33. RF Ø 34. LR Ø 35. RR Ø  
36. BL Ø 37. Roof Ø 38. Other Ø

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 — Laminated
- (2) AS-2 — Tempered
- (3) AS-3 — Tempered-tinted
- (4) AS-14 — Glass/Plastic
- (8) Other (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

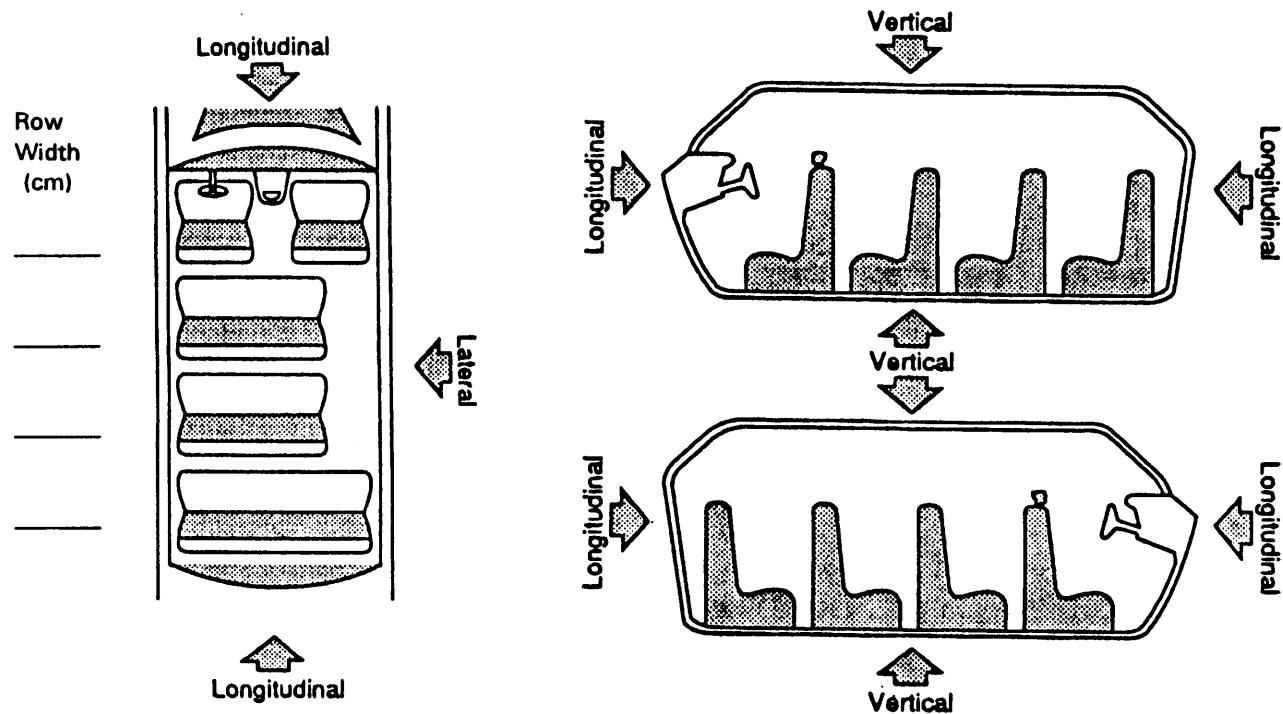
### Window Precrash Glazing Status

39. WS Ø 40. LF Ø 41. RF Ø 42. LR Ø 43. RR Ø  
44. BL Ø 45. Roof Ø 46. Other Ø

- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (9) Unknown

## INTRUSION WORKSHEET

**Note: Sketch intruded areas**



Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____ 50. _____
2nd	51. _____	52. _____	53. _____ 54. _____
3rd	55. _____	56. _____	57. _____ 58. _____
4th	59. _____	60. _____	61. _____ 62. _____
5th	63. _____	64. <u>0</u> _____	65. _____ 66. _____
6th	67. _____	68. _____	69. _____ 70. _____
7th	71. _____	72. _____	73. _____ 74. _____
8th	75. _____	76. _____	77. _____ 78. _____
9th	79. _____	80. _____	81. _____ 82. _____
10th	83. _____	84. _____	85. _____ 86. _____

## LOCATION OF INTRUSION

Front Seat  
 (11) Left  
 (12) Middle  
 (13) Right

Fourth Seat  
 (41) Left  
 (42) Middle  
 (43) Right

Second Seat  
 (21) Left  
 (22) Middle  
 (23) Right

(97) Catastrophic  
 (98) Other enclosed area (specify)  
 (99) Unknown

Third Seat  
 (31) Left  
 (32) Middle  
 (33) Right

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify):

- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

## Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify):
- (32) Other exterior object in the environment (specify):
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify):
- (99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq$  3 centimeters but  $<$  8 centimeters
- (2)  $\geq$  8 centimeters but  $<$  15 centimeters
- (3)  $\geq$  15 centimeters but  $<$  30 centimeters
- (4)  $\geq$  30 centimeters but  $<$  46 centimeters
- (5)  $\geq$  46 centimeters but  $<$  61 centimeters
- (6)  $\geq$  61 centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE - DAMAGE VALUE = DEFORMATION

	-	-	=
	-	-	=
	-	0	=
	-	-	=

## STEERING COLUMN

87. Steering Column Type

3

- (1) Fixed column
- (2) Tilt column
- (3) Telescoping column
- (4) Tilt and telescoping column
- (8) Other column type (specify):

(9) Unknown

88. Blank

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.)

X X

89. Blank

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.)

X X X

90. Blank

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.)

X X X

91. Blank

(This variable is left blank so that numbering consistency can be maintained with the 1988-93 CDS.)

X X X

92. Steering Rim/Spoke Deformation

0 0

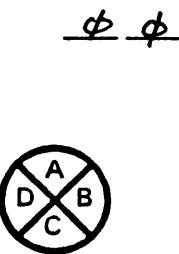
Code actual measured deformation to the nearest centimeter  
 (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown

93. Location of Steering Rim/Spoke Deformation

(00) No steering rim deformation

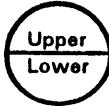
## Quarter Sections

- (01) Section A
- (02) Section B
- (03) Section C
- (04) Section D



## Half Sections

- (05) Upper half of rim/spoke
- (06) Lower half of rim/spoke
- (07) Left half of rim/spoke
- (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
- (10) Undetermined location
- (99) Unknown

## INSTRUMENT PANEL

94. Odometer Reading

0 1 7 ,000

\_\_\_\_\_ kilometers—Code to the nearest 1,000 kilometers

- (000) No odometer
- (001) Less than 1,500 kilometers
- (500) 499,500 kilometers or more
- (999) Unknown

0 1 0 . 5 5 1 miles  $\times 1.6093 =$  0 1 6 . 9 8 0 kilometers

Source: \_\_\_\_\_

95. Instrument Panel Damage from Occupant Contact?

- (0) No
- (1) Yes
- (9) Unknown

0

96. Knee Bolsters Deformed from Occupant Contact?

- (0) No
- (1) Yes
- (8) Not present
- (9) Unknown

8

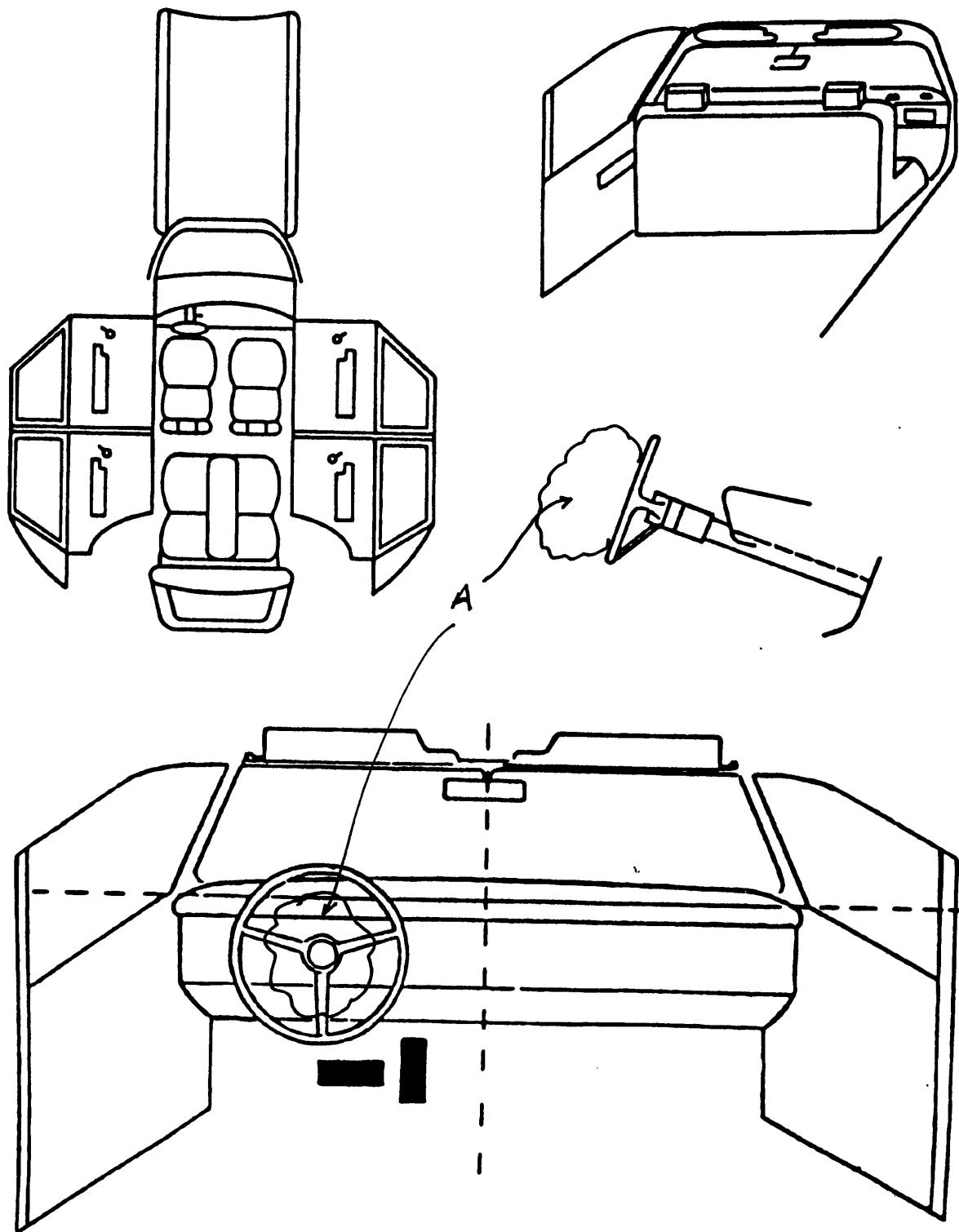
97. Did Glove Compartment Door Open During Collision(s)?

- (0) No
- (1) Yes
- (8) Not present
- (9) Unknown

0

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	45	1	FACE	AIRBAG DEPLOYED	1
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

## CODES FOR INTERIOR COMPONENTS

## FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (19) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar

## (23) Left B-pillar

## (24) Other left pillar (specify): \_\_\_\_\_

## (25) Left side window glass or frame

## (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.

## (27) Other left side object (specify): \_\_\_\_\_

## (28) Left side window sill

## RIGHT SIDE

## (30) Right side interior surface, excluding hardware or armrests

## (31) Right side hardware or armrest

## (32) Right A (A1/A2)-pillar

## (33) Right B-pillar

## (34) Other right pillar (specify): \_\_\_\_\_

## (35) Right side window glass or frame

## (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.

## (37) Other right side object (specify): \_\_\_\_\_

## (38) Right side window sill

## INTERIOR

## (40) Seat, back support

## (41) Belt restraint webbing/buckle

## (42) Belt restraint B-pillar attachment point

## (43) Other restraint system component (specify): \_\_\_\_\_

## (44) Head restraint system

## (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)

## (46) Other occupants (specify): \_\_\_\_\_

## (47) Interior loose objects

## (48) Child safety seat (specify): \_\_\_\_\_

## (49) Other interior object (specify): \_\_\_\_\_

## ROOF

## (50) Front header

## (51) Rear header

## (52) Roof left side rail

## (53) Roof right side rail

## (54) Roof or convertible top

## FLOOR

## (56) Floor (including toe pan)

## (57) Floor or console mounted transmission lever, including console

## (58) Parking brake handle

## (59) Foot controls including parking brake

## REAR

## (60) Backlight (rear window)

## (61) Backlight storage rack, door, etc.

## (62) Other rear object (specify): \_\_\_\_\_

## CONFIDENCE LEVEL OF CONTACT POINT

## (1) Certain

## (2) Probable

## (3) Possible

## (9) Unknown

## AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

### AIR BAGS

		Left	Right
F I R S T	Availability/Function	/	∅
	Deployment	/	∅
	Failure	/	∅

#### Air Bag System Availability/Function

(0) Not equipped/not available  
(1) Air bag

#### *No...functional*

(2) Air bag disconnected (specify):  
(3) Air bag not reinstalled  
(9) Unknown

#### Air Bag System Deployment

(0) Not equipped/not available  
(1) Air bag deployed during accident (as a result of impact)  
(2) Air bag deployed inadvertently just prior to accident  
(3) Air bag deployed, accident sequence undetermined  
(4) Nondeployed  
(5) Unknown if deployed  
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(9) Unknown

#### Did Air Bag System Fail?

(0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(9) Unknown

### AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	∅	∅
	Use	∅	∅
	Type	∅	∅
	Proper Use	∅	∅
	Failure Modes	∅	∅

#### Automatic (Passive) Belt System Availability/Function

(0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

#### *Non-functional*

(4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

#### Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

#### Automatic (Passive) Belt System Type

(0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

#### Proper Use of Automatic (Passive) Belt System

(0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

#### *Automatic Belt Used Improperly*

(3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):  
(8) Other improper use of automatic belt system  
(specify):

(9) Unknown

#### Automatic (Passive) Belt Failure Modes During Accident

(0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
(9) Unknown

## MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4	Ø	4
	Use	Ø4	ØØ	Ø4
	Failure Modes	1	Ø	1
S E C O N D	Availability	4	3	4
	Use	ØØ	ØØ	ØØ
	Failure Modes	Ø	Ø	Ø
T H I R D	Availability			
	Use			
	Failure Modes			
O T H E R	Availability			
	Use			
	Failure Modes			

## Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

## Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

## Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): \_\_\_\_\_
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown

## (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): \_\_\_\_\_
- (99) Unknown if belt used

## Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other manual belt failure (specify): \_\_\_\_\_
- (9) Unknown \_\_\_\_\_

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage			⑦			
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

**1. Type of Child Safety Seat**

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):  
 (8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

**2. Child Safety Seat Orientation**

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):  
 (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):  
 (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):  
 (29) Unknown orientation  
 (99) Unknown if child safety seat used

**3. Child Safety Seat Harness Usage**

- 4. Child Safety Seat Shield Usage
- 5. Child Safety Seat Tether Usage
- Note: Options Below Are Used for Variables 3-5.
- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**6. Child Safety Seat Make/Model**  
(Specify make/model and occupant number)

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## HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Head Restraint Type/Damage	3	Ø	3
	Seat Type	Ø1	ØØ	Ø1
	Seat Performance	1	Ø	1
	Seat Orientation	1	Ø	1
S E C O N D	Head Restraint Type/Damage	3	Ø	3
	Seat Type	Ø3	Ø3	Ø3
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
T H I R D	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
O T H E R	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

## Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify): \_\_\_\_\_
- (9) Unknown

## Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

## Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

## Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

## EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No  Yes

Describe indications of ejection and body parts involved in partial ejection(s):

---



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Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection (1) Complete ejection (2) Partial ejection (3) Ejection, Unknown degree (9) Unknown	(7) Roof (8) Other area (e.g., back of pickup, etc.) (specify): <hr/> (9) Unknown	(5) Integral structure (8) Other medium (specify): <hr/> (9) Unknown
Ejection Area (1) Windshield (2) Left front (3) Right front (4) Left rear (5) Right rear (6) Rear	Ejection Medium (1) Door/hatch/tailgate (2) Nonfixed roof structure (3) Fixed glazing (4) Nonfixed glazing (specify): <hr/>	Medium Status (Immediately Prior to Impact) (1) Open (2) Closed (3) Integral structure (9) Unknown

ENTRAPMENT No  Yes

Describe entrapment mechanism:

---



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Component(s):

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(Note in vehicle interior diagram)



# OCCUPANT ASSESSMENT FORM

## OCCUPANT'S SEATING

1. Primary Sampling Unit Number \_\_\_\_\_
2. Case Number - Stratum DSI-93-AB-016
3. Vehicle Number 0 1
4. Occupant Number 0 1

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 62  
Code actual age at time of accident.  
(00) Less than one year old (specify by month):  
  
(97) 97 years and older  
(99) Unknown
6. Occupant's Sex 2  
(1) Male  
(2) Female  
(9) Unknown
7. Occupant's Height 163  
Code actual height to the nearest centimeter.  
(999) Unknown  
  
64 inches X 2.54 = 163 centimeters
8. Occupant's Weight 059  
Code actual weight to the nearest kilogram.  
(999) Unknown  
  
136 pounds X .4536 = 059 kilograms
9. Occupant's Role 1  
(1) Driver  
(2) Passenger  
(9) Unknown

10. Occupant's Seat Position 1 1

*Front Seat*

- (11) Left side
- (12) Middle
- (13) Right side
- (14) Other (specify): \_\_\_\_\_
- (15) On or in the lap of another occupant

*Second Seat*

- (21) Left side
- (22) Middle
- (23) Right side
- (24) Other (specify): \_\_\_\_\_
- (25) On or in the lap of another occupant

*Third Seat*

- (31) Left side
- (32) Middle
- (33) Right side
- (34) Other (specify): \_\_\_\_\_
- (35) On or in the lap of another occupant

*Fourth Seat*

- (41) Left side
- (42) Middle
- (43) Right side
- (44) Other (specify): \_\_\_\_\_
- (45) On or in the lap of another occupant

- (97) In or on unenclosed area

- (98) Other seat (specify): \_\_\_\_\_
- (99) Unknown

11. Occupant's Posture

- (0) Normal posture 0

*Abnormal posture*

- (1) Kneeling or standing on seat
- (2) Lying on or across seat
- (3) Kneeling, standing or sitting in front of seat
- (4) Sitting sideways or turned to talk with another occupant or to look out a rear window
- (5) Sitting on a console
- (6) Lying back in a reclined seat position
- (7) Bracing with feet or hands on a surface in front of seat
- (8) Other abnormal posture (specify): \_\_\_\_\_

- (9) Unknown

## EJECTION/ENTRAPMENT

## 12. Ejection

(0) No ejection  
(1) Complete ejection  
(2) Partial ejection  
(3) Ejection, unknown degree  
(9) Unknown

0

## 15. Medium Status (Immediately Prior To Impact)

(0) No ejection  
(1) Open  
(2) Closed  
(3) Integral structure  
(9) Unknown

0

## 13. Ejection Area

(0) No ejection  
(1) Windshield  
(2) Left front  
(3) Right front  
(4) Left rear  
(5) Right rear  
(6) Rear  
(7) Roof  
(8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_  
(9) Unknown

0

## 16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)  
(0) Not entrapped  
(1) Entrapped  
(9) Unknown

0

## 14. Ejection Medium

(0) No ejection  
(1) Door/hatch/tailgate  
(2) Nonfixed roof structure  
(3) Fixed glazing  
(4) Nonfixed glazing (specify):  
\_\_\_\_\_  
(5) Integral structure  
(8) Other medium (specify):  
\_\_\_\_\_  
(9) Unknown

0

## RESTRAINT SYSTEM EVALUATION

## 17. Manual (Active) Belt System Availability

4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

## 18. Manual (Active) Belt System Use

φ 4

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

## 19. Proper Use of Manual (Active) Belts

1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

## 20. Manual (Active) Belt Failure Modes

*During Accident*

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

## 21. Air Bag System Availability/Function

1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify): \_\_\_\_\_
- (3) Air bag not reinstalled
- (9) Unknown

## 22. Air Bag System Deployment

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

## 23. Are There Indications of Air Bag System Failure?

1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_
- (9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

## 24. Police Reported Restraint Use

9

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_
- (8) Restrained, type unknown
- (9) Police indicated "unknown"

## HEAD RESTRAINT AND SEAT EVALUATION

## 25. Head Restraint Type/Damage by Occupant at This Occupant Position

3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

## 26. Seat Type (this Occupant Position)

0 1

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
  
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

## 27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

## CHILD SAFETY SEAT

<p>28. Child Safety Seat Make/Model <u>      ∅      ∅      ∅      </u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify):  (998) Unknown make/model (999) Unknown if child safety seat used</p>	<p>31. Child Safety Seat Harness Usage <u>      ∅      ∅      </u></p> <p>32. Child Safety Seat Shield Usage <u>      ∅      ∅      </u></p>
<p>29. Type of Child Safety Seat <u>      ∅      </u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify):  (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	<p><i>Note: Options below applicable to Variables OA31-OA33.</i></p> <p>(00) No child safety seat</p> <p><i>Not Designed With Harness/Shield/Tether</i></p> <p>(01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i></p> <p>(11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p>
<p>30. Child Safety Seat Orientation <u>      ∅      ∅      </u></p> <p>(00) No child safety seat</p> <p><i>Designed for Rear Facing for This Age/Weight</i></p> <p>(01) Rear facing (02) Forward facing (08) Other orientation (specify):  (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i></p> <p>(11) Rear facing (12) Forward facing (18) Other orientation (specify):  (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i></p> <p>(21) Rear facing (22) Forward facing (28) Other orientation (specify):  (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p>	<p><i>Unknown If Designed With Harness/Shield/Tether</i></p> <p>(21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>

## INJURY CONSEQUENCES

## 34. Injury Severity (Police Rating)

9

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

## 35. Treatment - Mortality

6

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

## Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_
- (9) Unknown

## 36. Type Of Medical Facility (for Initial Treatment)

4

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

## 37. Hospital Stay

d d

- (00) Not Hospitalized  
\_\_\_\_\_  
Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

## 99. Case Occupant

1

- (0) Not the Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant in another case.

## 38. Working Days Lost

d d

\_\_\_\_\_  
Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE  
COMPLETED BY THE ZONE CENTER

## 39. Time to Death

d d

\_\_\_\_\_  
Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

## 40. 1st Medically Reported Cause of Death

d d

## 41. 2nd Medically Reported Cause of Death

d d

## 42. 3rd Medically Reported Cause of Death

d d

\_\_\_\_\_  
Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):  
\_\_\_\_\_

- (97) Other result (includes fatal ruled disease) (specify):  
\_\_\_\_\_

- (99) Unknown

43. Number of Recorded Injuries for  
This Occupant

d 1

\_\_\_\_\_  
Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**

44. Automatic (Passive) Belt System Availability/  
Function ✓

(0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

*Non-functional*

(4) Automatic belts destroyed or rendered  
inoperative  
(9) Unknown

45. Automatic (Passive) Belt System Use ✓

(0) Not equipped/not available/destroyed or  
rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually  
disconnected, motorized track inoperative)  
(specify):  
  
(3) Automatic belt use unknown  
(9) Unknown

46. Automatic (Passive) Belt System Type ✓

(0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

47. Proper Use of Automatic (Passive  
Belt System) ✓

(0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with  
child safety seat

*Automatic Belt Used Improperly*

(3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than  
one person  
(6) Lap portion of automatic belt worn  
on abdomen  
(7) Automatic lap and shoulder belt or  
automatic shoulder belt used improperly  
with child safety seat (specify):  
  
(8) Other improper use of automatic belt system  
(specify):  
(9) Unknown

## 48. Automatic (Passive) Belt Failure Modes

## During Accident

(0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

49. Seat Orientation (this Occupant Position) ✓

(0) Occupant not seated or no seat  
(1) Forward facing seat  
(2) Rear facing seat  
(3) Side facing seat (inward)  
(4) Side facing seat (outward)  
(8) Other (specify):

(9) Unknown

**STOP - VARIABLES 50 THROUGH 52 ARE  
COMPLETED BY THE ZONE CENTER**

**TRAUMA DATA**50. Glasgow Coma Scale (GCS) Score ✓ 1

(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the  
initial GCS Score recorded at medical  
facility.  
(97) Injured, details unknown  
(99) Unknown if injured

51. Was the Occupant Given Blood? 1

(1) No - blood not given  
(2) Yes - blood given  
(specify units):  
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO<sub>3</sub> ✓ 1

(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED  
WITH INITIAL SUBMISSION?

NO [X] YES [ ]

UPDATE CANDIDATE?

NO [X] YES [ ]

U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.S. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number \_\_\_\_\_

3. Vehicle Number \_\_\_\_\_

2. Case Number - Stratum DSI-93-AB-0104. Occupant Number 01

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	O.I.C.-A.I.S						Injury Source	Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect					
1st	5. <u>1</u>	6. <u>2</u>	7. <u>9</u>	8. <u>02</u>	9. <u>02</u>	10. <u>1</u>	11. <u>0</u>	12. <u>45</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. _____	17. _____	18. _____	19. _____	20. _____	21. _____	22. _____	23. _____	24. _____	25. _____	26. _____
3rd	27. _____	28. _____	29. _____	30. _____	31. _____	32. _____	33. _____	34. _____	35. _____	36. _____	37. _____
4th	38. _____	39. _____	40. _____	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____	47. _____	48. _____
5th	49. _____	50. _____	51. _____	52. _____	53. _____	54. _____	55. _____	56. _____	57. _____	58. _____	59. _____
6th	60. _____	61. _____	62. _____	63. _____	64. _____	65. _____	66. _____	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____	75. _____	76. _____	77. _____	78. _____	79. _____	80. _____	81. _____
8th	82. _____	83. _____	84. _____	85. _____	86. _____	87. _____	88. _____	89. _____	90. _____	91. _____	92. _____
9th	93. _____	94. _____	95. _____	96. _____	97. _____	98. _____	99. _____	100. _____	101. _____	102. _____	103. _____
10th	104. _____	105. _____	106. _____	107. _____	108. _____	109. _____	110. _____	111. _____	112. _____	113. _____	114. _____

## OCCUPANT INJURY DATA

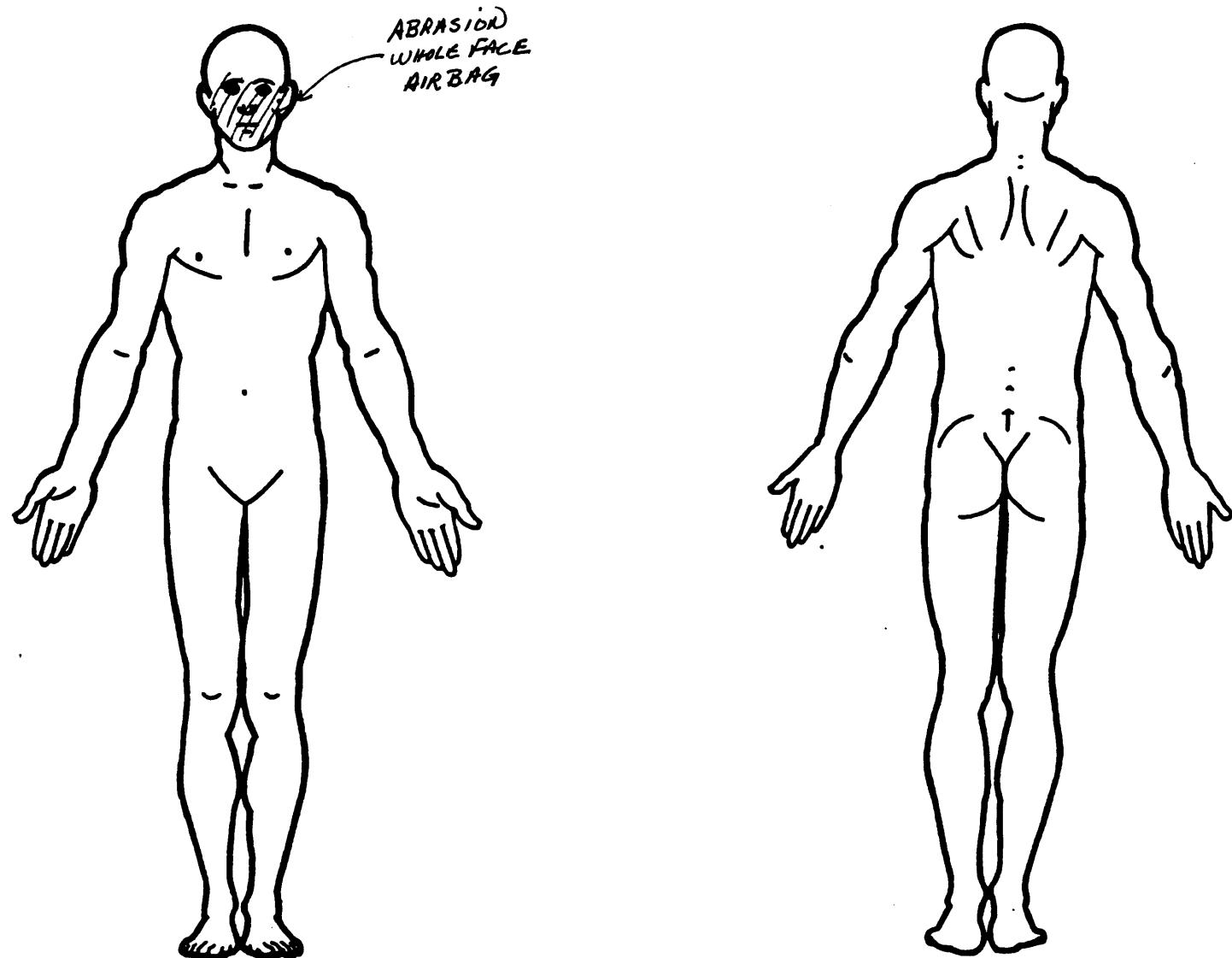
Source of Injury Data	O.I.C.-A.I.S						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect				
11th	—	—	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—

ICD-9

## OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

BEST AVAILABLE COPY

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## SOURCE OF INJURY DATA

### OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

### UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify):

- (9) Police

## INJURY SOURCE

### FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify):
- (19) Other front object (specify):

### LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify):

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):

- (28) Left side window sill

### RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):

- (35) Right side window glass or frame

- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.

- (37) Other right side object (specify):

- (38) Right side window sill

### INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):

- (47) Interior loose objects

- (48) Child safety seat (specify):

- (49) Other interior object (specify):

### ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

### FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

### REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.

- (62) Other rear object (specify):

### EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify):
- (68) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify):

- (73) Hood

- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify)

- (79) Rear surface

- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify):

- (83) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify):

- (86) Unknown vehicle or object

### NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify):
- (93) Air bag exhaust gases
- (97) Injured, unknown source

## INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

## DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OCCUPANT INJURY CLASSIFICATION

### Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

### Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

### Specific Anatomic Structure

- Whole Area**
- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

### Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

### Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

### Vessels, Nerves, Organs, Bones, Joints

Jointes are assigned consecutive two digit numbers beginning with 02

### Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

### Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

### Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

## OFFICIAL INJURY DATA – SKELETAL INJURIES

Restrained?

No

Yes

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Blood Alcohol Level (mg/dl)

BAL = N/A

Glasgow Coma Scale Score

GCSS = N/A

Units of Blood Given

Units = 0

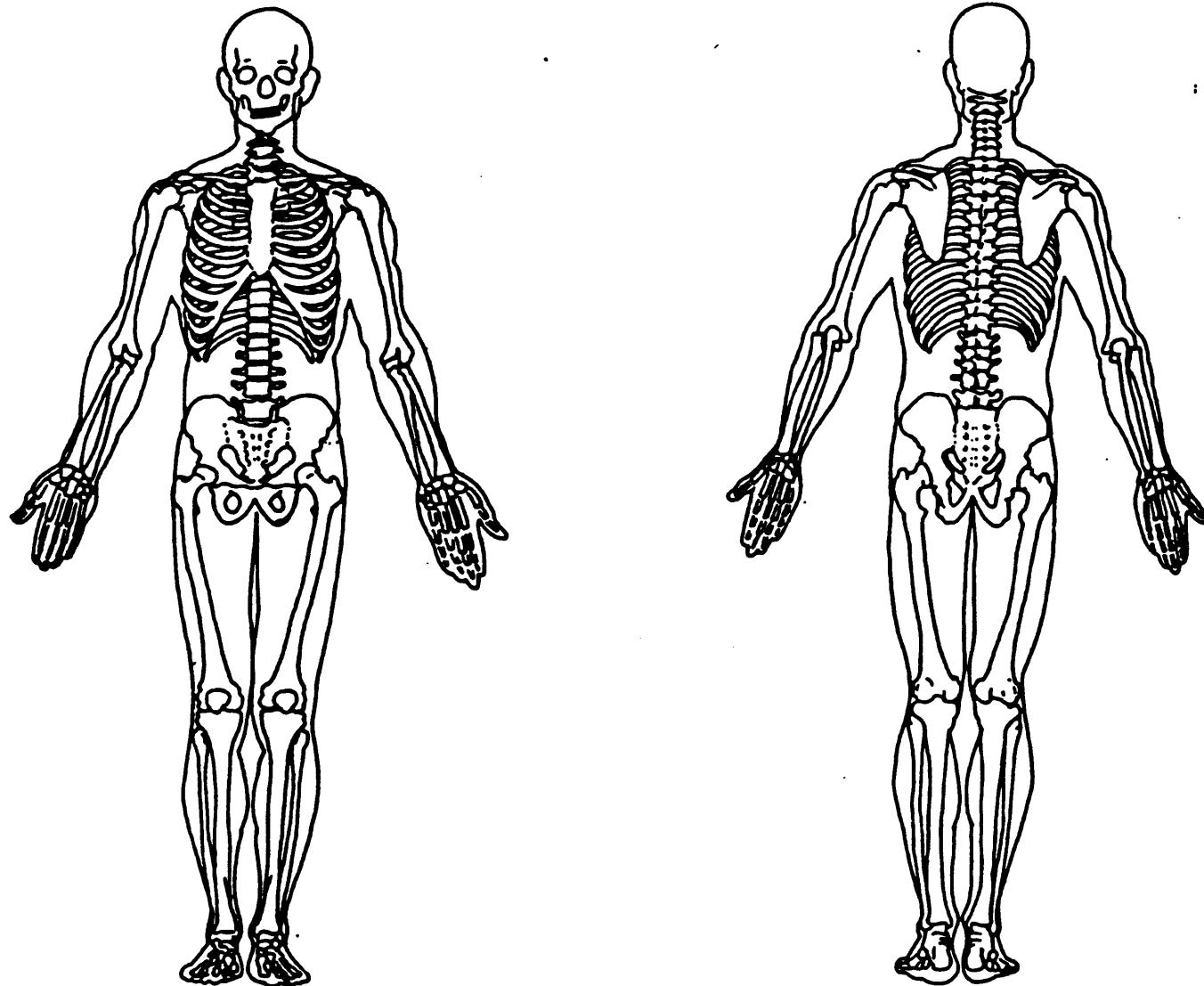
Arterial Blood Gases

pH = 7.4

PO<sub>2</sub> = 95

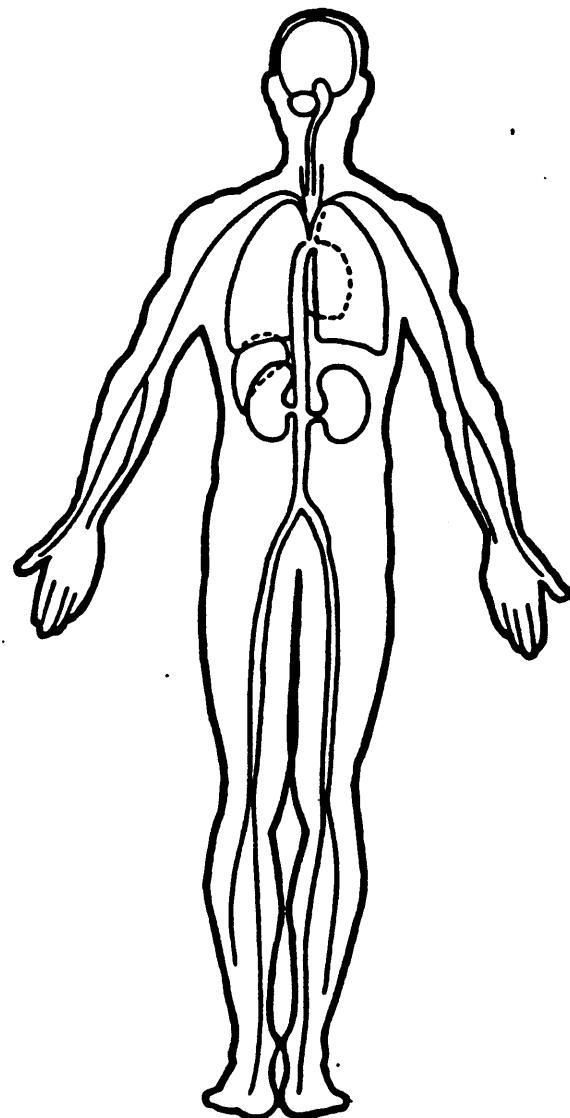
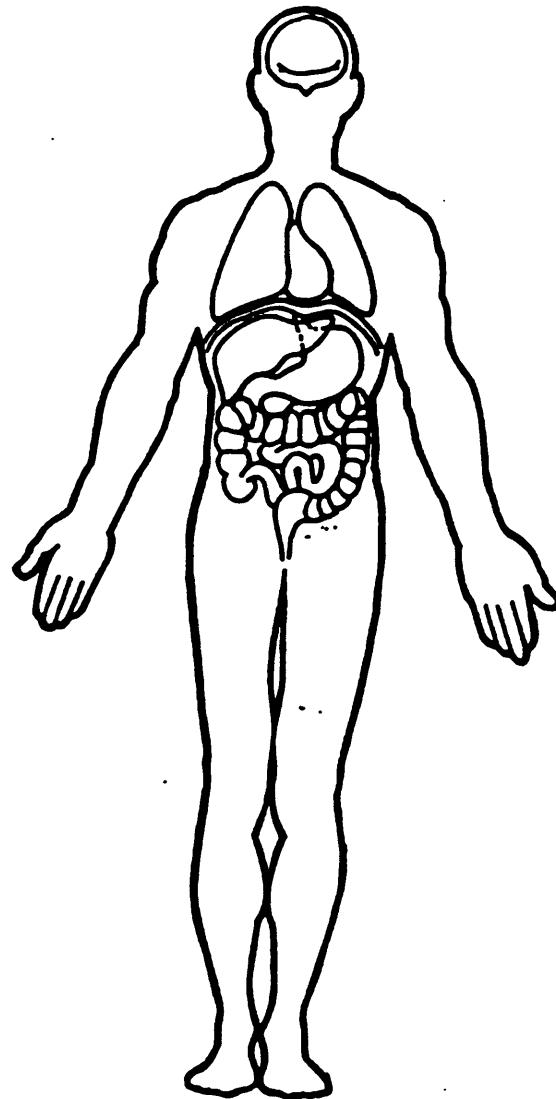
PCO<sub>2</sub> = 35

HCO<sub>3</sub> = 24



## OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





# OCCUPANT ASSESSMENT FORM

<p>1. Primary Sampling Unit Number _____</p> <p>2. Case Number - Stratum <u>DST-93-A B-414</u></p> <p>3. Vehicle Number <u>Φ 1</u></p> <p>4. Occupant Number <u>Φ 2</u></p>		<p><b>OCCUPANT'S SEATING</b></p> <p>10. Occupant's Seat Position <u>1 3</u></p> <p><i>Front Seat</i></p> <p>(11) Left side (12) Middle (13) Right side (14) Other (specify): _____ (15) On or in the lap of another occupant</p> <p><i>Second Seat</i></p> <p>(21) Left side (22) Middle (23) Right side (24) Other (specify): _____ (25) On or in the lap of another occupant</p> <p><i>Third Seat</i></p> <p>(31) Left side (32) Middle (33) Right side (34) Other (specify): _____ (35) On or in the lap of another occupant</p> <p><i>Fourth Seat</i></p> <p>(41) Left side (42) Middle (43) Right side (44) Other (specify): _____ (45) On or in the lap of another occupant</p> <p>(97) In or on unenclosed area (98) Other seat (specify): _____ (99) Unknown</p>	
<p><b>OCCUPANT'S CHARACTERISTICS</b></p> <p>5. Occupant's Age <u>7 6</u> Code actual age at time of accident. (00) Less than one year old (specify by month):  (97) 97 years and older (99) Unknown</p> <p>6. Occupant's Sex <u>1</u> (1) Male (2) Female (9) Unknown</p> <p>7. Occupant's Height <u>1 8 Φ</u> Code actual height to the nearest centimeter. (999) Unknown</p> <p><u>7 1</u> inches X 2.54 = <u>1 8 Φ</u> centimeters</p> <p>8. Occupant's Weight <u>Φ 7 9</u> Code actual weight to the nearest kilogram. (999) Unknown</p> <p><u>1 7 5</u> pounds X .4536 = <u>Φ 7 9</u> kilograms</p> <p>9. Occupant's Role <u>2</u> (1) Driver (2) Passenger (9) Unknown</p>			
<p>11. Occupant's Posture <u>Φ</u></p> <p>(0) Normal posture</p> <p><i>Abnormal posture</i></p> <p>(1) Kneeling or standing on seat (2) Lying on or across seat (3) Kneeling, standing or sitting in front of seat (4) Sitting sideways or turned to talk with another occupant or to look out a rear window (5) Sitting on a console (6) Lying back in a reclined seat position (7) Bracing with feet or hands on a surface in front of seat (8) Other abnormal posture (specify): _____ (9) Unknown</p>			

## EJECTION/ENTRAPMENT

## 12. Ejection

(0) No ejection  
(1) Complete ejection  
(2) Partial ejection  
(3) Ejection, unknown degree  
(9) Unknown

φ

15. Medium Status (Immediately Prior To Impact) 6

(0) No ejection  
(1) Open  
(2) Closed  
(3) Integral structure  
(9) Unknown

## 13. Ejection Area

(0) No ejection  
(1) Windshield  
(2) Left front  
(3) Right front  
(4) Left rear  
(5) Right rear  
(6) Rear  
(7) Roof  
(8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_  
(9) Unknown

φ

## 16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

(0) Not entrapped  
(1) Entrapped  
(9) Unknown

## 14. Ejection Medium

(0) No ejection  
(1) Door/hatch/tailgate  
(2) Nonfixed roof structure  
(3) Fixed glazing  
(4) Nonfixed glazing (specify):  
\_\_\_\_\_  
(5) Integral structure  
(8) Other medium (specify):  
\_\_\_\_\_  
(9) Unknown

φ

## RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- None available
- Belt removed/destroyed
- Shoulder belt
- Lap belt
- Lap and shoulder belt
- Belt available—type unknown

*Integral Belt Partially Destroyed*

- Shoulder belt (lap belt destroyed/removed)
- Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

18. Manual (Active) Belt System Use 4

- None used, not available, or belt removed/destroyed
- Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

19. Proper Use of Manual (Active) Belts 1

- None used or not available
- Belt used properly
- Belt used properly with child safety seat

*Belt Used Improperly*

- Shoulder belt worn under arm
- Shoulder belt worn behind back or seat
- Belt worn around more than one person
- Lap belt worn on abdomen
- Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

20. Manual (Active) Belt Failure Modes 1

*During Accident*

- No manual belt used
- No manual belt failure(s)
- Torn webbing (stretched webbing not included)
- Broken buckle or latchplate
- Upper anchorage separated
- Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

21. Air Bag System Availability/Function 6

- Not equipped/not available
- Air bag

*Non-functional*

- Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

22. Air Bag System Deployment 6

- Not equipped/not available
- Air bag deployed during accident (as a result of impact)
- Air bag deployed inadvertently just prior to accident
- Air bag deployed, accident sequence undetermined
- Nondeployed
- Unknown if deployed
- Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- Unknown

23. Are There Indications of Air Bag System Failure? 6

- Not equipped/not available
- No
- Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 9

- None used
- Police did not indicate restraint use
- Shoulder belt
- Lap belt
- Lap and shoulder belt
- Belt used, type not specified
- Child safety seat
- Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown \_\_\_\_\_

(9) Police indicated "unknown" \_\_\_\_\_

## HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown

27. Seat Performance (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

26. Seat Type (this Occupant Position) 01

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

(10) Box mounted seat (i.e., van type)

(99) Unknown

## CHILD SAFETY SEAT

<p>28. Child Safety Seat Make/Model <u>      φ      φ      φ      </u></p> <p>(000) No child safety seat Applicable codes are found in your NASS CDS Data Collection, Coding and Editing (950) Built-in child safety seat (997) Other make/model (specify):  (998) Unknown make/model (999) Unknown if child safety seat used</p>	<p>31. Child Safety Seat Harness Usage <u>      φ      φ      </u></p> <p>32. Child Safety Seat Shield Usage <u>      φ      φ      </u></p> <p>33. Child Safety Seat Tether Usage <u>      φ      φ      </u></p> <p>Note: Options below applicable to Variables OA31-OA33.</p> <p>(00) No child safety seat</p>
<p>29. Type of Child Safety Seat <u>      φ      </u></p> <p>(0) No child safety seat (1) Infant seat (2) Toddler seat (3) Convertible seat (4) Booster seat (7) Other type child safety seat (specify):  (8) Unknown child safety seat type (9) Unknown if child safety seat used</p>	<p><i>Not Designed With Harness/Shield/Tether</i> (01) After market harness/shield/tether added, not used (02) After market harness/shield/tether used (03) Child safety seat used, but no after market harness/shield/tether added (09) Unknown if harness/shield/tether added or used</p> <p><i>Designed With Harness/Shield/Tether</i> (11) Harness/shield/tether not used (12) Harness/shield/tether used (19) Unknown if harness/shield/tether used</p> <p><i>Unknown If Designed With Harness/Shield/Tether</i> (21) Harness/shield/tether not used (22) Harness/shield/tether used (29) Unknown if harness/shield/tether used</p> <p>(99) Unknown if child safety seat used</p>
<p>30. Child Safety Seat Orientation <u>      φ      φ      </u></p> <p><i>Designed for Rear Facing for This Age/Weight</i> (01) Rear facing (02) Forward facing (08) Other orientation (specify):  (09) Unknown orientation</p> <p><i>Designed For Forward Facing for This Age/Weight</i> (11) Rear facing (12) Forward facing (18) Other orientation (specify):  (19) Unknown orientation</p> <p><i>Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight</i> (21) Rear facing (22) Forward facing (28) Other orientation (specify):  (29) Unknown orientation</p> <p>(99) Unknown if child safety seat used</p>	

## INJURY CONSEQUENCES

## 34. Injury Severity (Police Rating)

9

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

## 35. Treatment - Mortality

0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):  
\_\_\_\_\_
- (9) Unknown

## 36. Type Of Medical Facility (for Initial Treatment)

0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

## 37. Hospital Stay

0 0

- (00) Not Hospitalized  
\_\_\_\_\_  
Code the number of days (up through 60)  
that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

## 99. Case Occupant

0

- (0) Not the Case Occupant
- (1) This is the Case Occupant
- (2) This is the Case Occupant  
in another case.

## 38. Working Days Lost

0 0

\_\_\_\_\_  
Code the number of days  
(up through 60) that the occupant  
lost from work due to the accident

- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE  
COMPLETED BY THE ZONE CENTER

## 39. Time to Death

0 0

\_\_\_\_\_  
Code number of hours from time of  
accident to time of death up through 24  
hours. If time of death is greater than 24  
hours, code number of days. (Note: 1 day =  
31, 2 days = 32, ... n days = 30 + n up  
through 30 days = 60)

- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

## 40. 1st Medically Reported Cause of Death

0 0

## 41. 2nd Medically Reported Cause of Death

0 0

## 42. 3rd Medically Reported Cause of Death

0 0

\_\_\_\_\_  
Code the Occupant Injury from line  
number(s) for the medically reported  
injury(s) which reportedly contributed to  
this occupant's death

- (00) Not fatal or no additional causes
- (96) Mode of death given but specific  
injuries are not linked to cause  
of death. (specify):  
\_\_\_\_\_

- (97) Other result (includes fatal ruled  
disease) (specify):  
\_\_\_\_\_

- (99) Unknown

43. Number of Recorded Injuries for  
This Occupant0 0

\_\_\_\_\_  
Code the actual number of  
injuries recorded for this occupant.

- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**

44. Automatic (Passive) Belt System Availability/  
Function

(0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

*Non-functional*  
(4) Automatic belts destroyed or rendered  
inoperative  
(9) Unknown

45. Automatic (Passive) Belt System Use

(0) Not equipped/not available/destroyed or  
rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually  
disconnected, motorized track inoperative)  
(specify):  
  
(3) Automatic belt use unknown  
(9) Unknown

46. Automatic (Passive) Belt System Type

(0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

47. Proper Use of Automatic (Passive  
Belt System)

(0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with  
child safety seat

*Automatic Belt Used Improperly*  
(3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than  
one person  
(6) Lap portion of automatic belt worn  
on abdomen  
(7) Automatic lap and shoulder belt or  
automatic shoulder belt used improperly  
with child safety seat (specify):  
  
(8) Other improper use of automatic belt system  
(specify):  
(9) Unknown

48. Automatic (Passive) Belt Failure Modes  
During Accident

(0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
  
(9) Unknown

49. Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat  
(1) Forward facing seat  
(2) Rear facing seat  
(3) Side facing seat (inward)  
(4) Side facing seat (outward)  
(8) Other (specify):  
  
(9) Unknown

**STOP - VARIABLES 50 THROUGH 52 ARE  
COMPLETED BY THE ZONE CENTER**

**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score

(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the  
initial GCS Score recorded at medical  
facility.  
(97) Injured, details unknown  
(99) Unknown if injured

51. Was the Occupant Given Blood?

(1) No - blood not given  
(2) Yes - blood given  
(specify units):  
(9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO<sub>3</sub>

(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED  
WITH INITIAL SUBMISSION?

NO  YES

UPDATE CANDIDATE?

NO  YES

**AIRBAG SUPPLEMENT**

1

**ACCIDENT SUMMARY**

1. Accident Date: **10/20/93**

2. Police Investigated **2**

(1) Yes  
(2) No  
(3) Unknown

Agency: **City**  
City: **County:**

3. General Locality **2**

(1) Freeway, Limited Access  
(2) Urban (City)  
(3) Urban-Rural (mixed)  
(4) Rural, Fields

4. Configuration (First Harm) **φ**

(0) Struck Object or Ped  
(1) Rear-End  
(2) Head-On  
(3) Rear-to-Rear  
(4) Angle  
(5) Sideswipe-Same Direction  
(6) Sideswipe-Opposite Dir.  
(7) Noncollision  
(8) Nonimpact Deployment  
(9) Unknown

5. Fire Involved **φ**

(0) None  
(1) Airbag Vehicle  
(2) Other Vehicle  
(3) Both Vehicles  
(9) Unknown

6. Vehicles Involved **1**

7. Persons Involved **2**

8. Injured Persons **1**

9. Maximum AIS in Accident **1**

**AIRBAG VEHICLE INSPECTION**

10. Date Vehicle Inspected: **10/20/93**

11. Reason Vehicle Not Inspected **1**

(0) Not Required  
(1) Inspection Completed  
(2) Cannot be Located  
(3) Repaired or Destroyed  
(5) Refusal or Impounded  
(7) Other:

12. Impact Data Obtained **1**

(0) No Data Obtained  
(1) CDC Only  
(2) Crush Profile Only  
(3) Trajectory Data Only  
(4) CDC and Crush Profile  
(5) CDC and Trajectory  
(6) Crush and Trajectory  
(7) CDC, Crush, and Trajectory

13. Basis of Delta-V **7**

(0) Not Computed (Unknown why)  
(1) CRASH - Damage Only  
(2) CRASH - Damage + Traj  
(3) OLDMISS  
(4) POLES  
(5) Unknown Basis  
(6) One Vehicle Beyond Scope  
(7) Collision Beyond Scope  
(8) Insufficient Data

**VEHICLE HISTORY**

14. Prior Impacts for AB Vehicle? **2**

(1) Yes  
(2) No  
(9) Unknown

15. Prior AB Maintenance or Service **2**

(1) Yes, (2) No, (9) Unknown

Describe:

**AIRBAG SUPPLEMENT**

2

**AIRBAG VEHICLE**Fleet: **NONE**VIN: **JH4K47654MCxxxxxx**Mileage: **16,984 km (10551m)****SYSTEM READINESS LAMP**

16. Pre-Impact Lamp Condition  1  
 (1) Functioning/Proved Out  
 (2) Inoperative  
 (9) Unknown

17. Driver's Report of Pre-Impact  
Flashing  66

(00) No Flashing Reported  
 (01) Continuous Flashing  
 (02)  
 Number of Flashes: \_\_\_\_\_  
 (11)  
 (12) Constant Light  
 (19) Flashing, Unknown Number  
 (88) Not Applicable, System Removed  
 (99) Unknown

18. Period of Pre-Impact Flashing  0  
 (0) No Flashing  
 (1) Same Day as Impact  
 (2) Prior Day  
 (3) Prior Two Days  
 (4) Prior Week  
 (5) Prior Month  
 (6) Over One Month  
 (9) Unknown

19. Post-Impact Lamp Condition  1  
 (1) Functioning/Proved Out  
 (2) Inoperative  
 (9) Unknown

20. Post-Impact Flashing  99  
 (00) No Flashing Reported  
 (01) Continuous Flashing  
 (02)  
 Number of Flashes: \_\_\_\_\_  
 (11)  
 (12) Constant Light  
 (19) Flashing, Unknown Number  
 (88) Not Applicable, System Removed  
 (99) Unknown

21. Airbag Vehicle First Harmful Event  44

(01) Fire or explosion  
 (02) Immersion  
 (03) Gas Inhalation  
 (04) Fell from vehicle  
 (05) Injured in vehicle  
 (06) Other noncollision (specify):

(07) Overturn  
 (08) Jackknife  
 COLLISION WITH:  
 (09) Pedestrian  
 (10) Pedalcyclist  
 (11) Railway train  
 (12) Animal  
 (13) Motor vehicle in transport  
 (same roadway)  
 (14) Motor vehicle in transport  
 (other roadway)  
 (15) Parked motor vehicle  
 (16) Other type nonmotorist (specify):  
 (17) Thrown or falling object  
 (18) Boulder

COLLISION WITH FIXED OBJECT  
 (20) Building  
 (21) Impact attenuator/crash cushion  
 (22) Bridge pier or abutment  
 (23) Bridge parapet end  
 (24) Bridge rail  
 (25) Guardrail  
 (26) Concrete traffic barrier  
 (27) Median barrier  
 (28) Other longitudinal barrier (specify):  
 (29) Highway/traffic sign post  
 (30) Overhead sign support  
 (31) Luminaire/light support  
 (32) Utility pole  
 (33) Other post, pole, or support  
 (34) Culvert  
 (35) Curb

(36) Ditch  
 (37) Embankment-earth  
 (38) Embankment-rock, stone, or concrete  
 (39) Fence  
 (40) Wall  
 (41) Fire hydrant  
 (42) Shrubbery  
 (43) Tree  
 (44) Other fixed object (specify): **MANHOLE TUBE/COVER RAISED**  
 (45) Pavement surface irregularity  
 (99) Unknown

AIRBAG SUPPLEMENT

3

## AIRBAG VEHICLE IMPACT SUMMARY

22. Vehicle Role  
 (0) Noncollision  
 (1) Striking unit  
 (2) Struck unit  
 (3) Both striking and struck  
 (9) Unknown

23. Manner of Leaving Scene  
 (1) Driven  
 (2) Towed-due to damage  
 (3) Towed-not for damage  
 (4) Towed-details unknown  
 (5) Abandoned  
 (9) Unknown

24. Number of Impact Events  
 (8) 8 or more  
 (9) Unknown

25. Rollover  
 (0) No rollover  
 (1) First event  
 (2) Subsequent event  
 (3) Yes, Unknown event  
 (9) Unknown

26. Override/Underride  
 (0) No override/underride  
 (1) Override - 1st CDC  
 (2) Override - Other CDC  
 (3) Underride - 1st CDC  
 (4) Underride - Other CDC  
 (9) Unknown

## AIRBAG VEHICLE DAMAGE

CODES: (1) Yes, (2) No, (9) Unknown

27. Left Front Fender Damage

28. Right Front Fender Damage

29. Center Top of Grille Damage

## FRONT BUMPER E.A. STATUS

 1

30. Left

 1

31. Right

 1

(1) Normal  
 (2) Extended  
 (3) Partial Compression  
 (4) Complete Compression  
 (5) Not Applicable  
 (9) Unknown

## FIRST AIRBAG VEHICLE IMPACT:

 1

32. Configuration

 φ

(0) Struck Object or Ped  
 (1) Rear-End  
 (2) Head-On  
 (3) Rear-to-Rear  
 (4) Angle  
 (5) Sideswipe-Same Direction  
 (6) Sideswipe-Opposite Dir.  
 (7) Noncollision  
 (8) Nonimpact Deployment  
 (9) Unknown

 φ

33. CDC: φφ 4YLN2

 φ

34. Object Contacted: RAISED MANHOLE TUBE

## PRIMARY/DEPLOYMENT IMPACT:

 φ

35. Event Number

 1

36. Total Delta-V

 99

37. Longitudinal Delta-V

 99 2

38. Configuration

 φ

See 32 above for codes

 2

39. CDC: φφ 4YLN2

 2

40. Object Contacted: RAISED MANHOLE TUBE

**AIRBAG SUPPLEMENT**

4

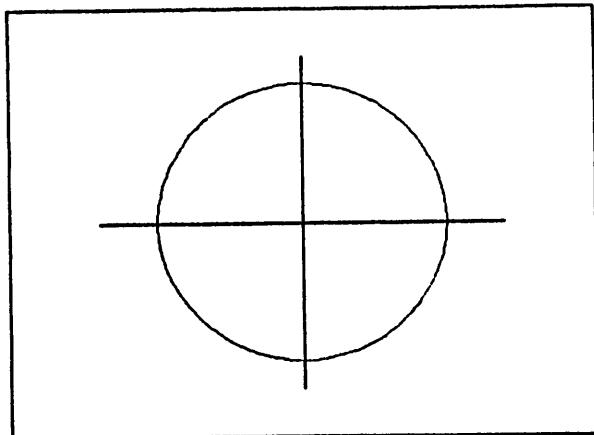
**AIRBAG SYSTEM DAMAGE**

CODES: (1) Yes, Damaged  
 (2) No, Intact  
 (3) Not Applicable  
 (9) Unknown

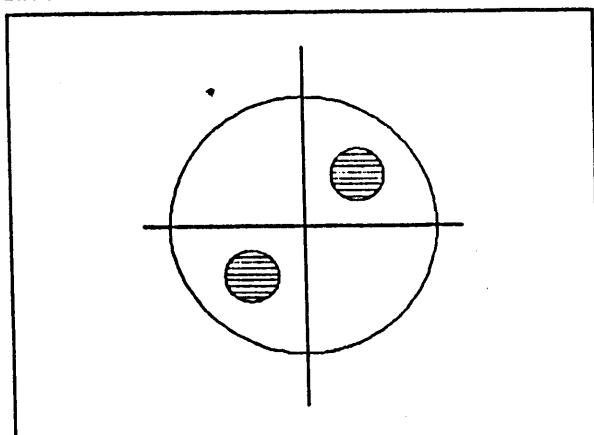
41. Airbag Module	<b>2</b>
42. Left Front Sensor	<b>2</b>
43. Center Front Sensor	<b>3</b>
44. Right Front Sensor	<b>2</b>
45. Rear Cowl Sensor	<b>3</b>
46. Diagnostic Module	<b>2</b>
47. Wiring	<b>2</b>
48. Knee Diverter	<b>3</b>
49. Indication of disconnected or loose electrical connectors	<b>2</b>
50. Condition of Deployed Bag	<b>1</b>
	(1) Bag intact (2) Split or torn (3) Cut by object in impact (4) Cut after accident (5) Other (8) NA (not deployed) (9) Unknown

DESCRIBE SYSTEM AND BAG DAMAGE: **None**NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS  
BELOW: **None**

FRONT



BACK



**AIRBAG SUPPLEMENT**

5

**OCCUPANTS OF AIRBAG CAR**

<b>MAXIMUM AIS BY BODY REGION</b>			
	<b>REGION</b>	<b>MAX AIS</b>	<b>CONTACT</b>
51. Number of Occupants in Vehicle	<input type="text" value="2"/>	Head/Neck/Face	<u>1</u> <b>AIR BAG</b>
		Chest	_____
52. Number of Injured Persons	<input type="text" value="1"/>	Abdomen	_____
		Legs/Hips	_____
53. Maximum AIS in Airbag Vehicle	<input type="text" value="1"/>	Other (Arms)	_____
(0) No Injury		Driver Maximum	<u>1</u> <b>AIR BAG</b>
(1-6) AIS Severity			
(7) Injured, unknown severity			
(9) Unknown			

**DRIVER**Age: 62Sex: FEMALE**54. Number of Driver Injuries**EJECTION NONEExtent: N/APortal: N/A**55. Source of Best Injury Data**

- (0) Not injured
- (1) Autopsy
- (2) Hospital Medical Records
- (3) Emergency Room only
- (4) Private physician, clinic
- (5) Lay Coroner Report
- (6) EMS Personnel
- (7) Interviewee
- (8) Police
- (9) Unknown

OTHER VEHICLE: NONE

Maximum AIS

Prime/Deploy Impact w AB Vehicle  
Event Number

CDC:

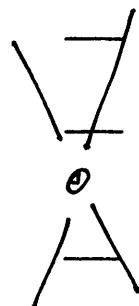
Total Delta V

Make:

Model Year:

Model:

Body Type:



NOTES:

AIRBAG SUPPLEMENT

6

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown

1

Evidence:

DRIVER POSTURE: Any comments Recorded (1) Yes, (2) No

1

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs, and feet. Also note hand and arm position. Did driver brace before crash? Describe:

~~SITTING IN A NORMAL, UPRIGHT SEATED POSITION. BOTH HANDS ON STEERING WHEEL RIM, BUT EXACT POSITION NOT RECALLED. R. FOOT ON ACCELERATOR, L. FOOT ON FLOOR/TOE PED. ELECTRIC SEAT WAS ADJUSTED TO THE FORWARD MOST POSITION,~~

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No

1

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelery play any role?:

~~No Foreign objects.~~

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No

1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

~~THE DRIVER WAS AWARE OF THE AIR BAG. STATED SHE WAS STARTLED BY A "HORRIBLUS" BANG AND A TERRIBLE SMELL. DRIVER FELT THAT AIR BAG SHOULD NOT HAVE DEPLOYED, BUT THAT IT WORKED WELL.~~

PASSENGER-AIRBAG CONTACT: (1) Yes, (2) No, (9) Unknown

2

Describe: